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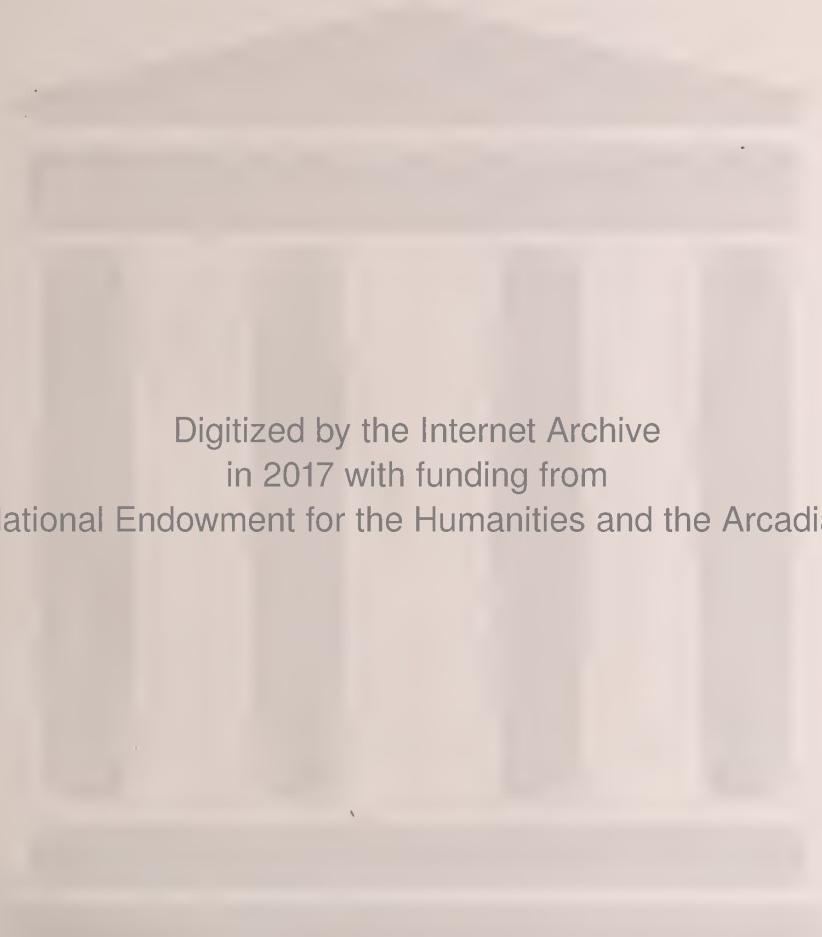


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The Journal

OF THE

South Carolina

Medical Association



Volume V.

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Number 1

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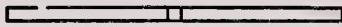
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VOL. V.

J. W. JERVEY, M. D., EDITOR

No. 1

JANUARY, 1909

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The Journal is published monthly under the auspices of the South Carolina Medical Association. Original Articles are solicited. Members who do not receive their copies will please notify the Business Manager. Correspondents and Secretaries of County Societies are urgently requested to send reports of their meetings, and items of news that may be of interest to the profession, to the Editor. All articles should be typewritten. Illustrations sent with articles will be printed. For prices of reprints see advertising pages.

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Editorial

FOREIGN BODY IN THE TRACHEA.

Under the head of "Clinical Note", this issue, Dr. John G. Pittman, of Gaffney, asking for suggestions, gives the history of a foreign body lodging in a child's trachea, and followed by sudden death about eight hours later, without convulsions, cyanosis, or other disquieting symptoms. This is a case, apparently, that could have been saved by the use of the modern instruments for the direct inspection of the larynx, wind-pipe and bronchial tubes. Great progress has been made in the technique of this instrumentation. It is very pretty and interesting work, and is a method by which many lives can be saved, that would otherwise be hopeless. Undoubtedly, as the doctor says, a tracheotomy would have been of great use in this case. It has been shown time and again that even when the cyanosis, or rather the asthma, is due to a foreign body or other obstruction well down in the wind pipe or bronchial tract, a tracheotomy opening often

gives relief, and occasionally the foreign body is expelled through this opening. It is probably not very rare to have these cases die in the way described. It does not take very much hard labor to exhaust an infant of two years, and the labored breathing for eight or nine hours without relief, in addition to the severely weakening effect of apomorphin, might readily have been a contributing factor in the death of the child. At the same time, the use of apomorphin was entirely justified, and under the circumstances cannot be criticised. Another probable cause of the quiet death, such as is described, is from a reflex irritation of the vagus, which might have cut off either the respiratory or cardiac functions suddenly and without warning. Several such cases have been reported. Of course, the prognosis of these cases where foreign bodies lodge in the respiratory tract is bad unless removal is accomplished. The only thing to do is to go down after them and get them out, per viam naturalem, if possible.

THE TRI-STATE MEETING.

The Tri-State Medical Association of the Carolinas and Virginia will hold its annual meeting in Charleston, on February 16, 77, next. The meetings of this association on account of the unusually high class of membership, are always of surpassing scientific interest, and no one can attend them without a distinct feeling of satisfaction and a certain knowledge that something practical and valuable has been learned. The energetic and indefatigable secretary, Dr. J. Howell Way, who, by the way, has been honored by the North Carolina doctors with the presidency of their state association, writes to us that "if the South Carolinians rally at Charleston as did the North Carolinians at Charlotte, a goodly meeting is assured, and I certainly expect them to do so." Dr. Albert Anderson, of Raleigh, who is well known to the profession of the three states, is president of the Tri-State association, and is working hard in the interests of the coming meeting. The section chairmen are all busy working up attendance, and a number of extremely interesting papers and demonstrations are already listed for the program. Among the distinguished visitors who will be present and who will address the meeting will be Dr. C. H. Mayo. The hospitality of Charleston will be extended in the true and famous Charleston way, and it is safe to say that no one will leave the meeting with the memory of aught but profit and pleasure. Every doctor in good standing in his state association is eligible for membership in the Tri-State, and an increase in membership is confidently looked forward to at the coming session. We should like to see one hundred new members from South Carolina, and if

they could realize the advantages of membership, every eligible doctor in the state would put in his application without delay. Remember the date, February 16, 17, 1909; and the place, Charleston, S. C.

ON ANNUAL DUES.

Every active and interested member of the South Carolina Medical Association ought to know and remember that an organization like ours, with the large amount of clerical work necessary for its proper conduct, both at committee meetings and at the general meetings, to say nothing of the individual official work necessary, requires the expenditure of money. It is time now for the payment of annual dues to the county society and the members who pay these dues should bear in mind that this one payment pays for his annual membership in his county society, the state association and the monthly visits of the Journal for the current year. When you consider all that you get for your money, the cost is exceedingly small. Even with prompt and full payments of dues, it is necessary for the officers of the state association and the county societies as well, to exercise good judgment and careful economy to keep things running smoothly and properly. Every member of the organization should have sufficient pride in the association and his profession to help out the officers, at least to the extent of promptly paying his dues at this time. Every good and live county society treasurer should call personally on members for the amount of their dues, and should keep calling until he is satisfied. With the proper pride and interest, then, on the part of members, and a proper alertness and alacrity on the part of

the county treasurers, there is every reason to believe that dues this year will be promptly and fully paid, and the work of the association can go on to further advantage and improvement.

OUR NEXT ANNUAL MEETING.

The 1909 annual meeting of the South Carolina Medical Association will soon be upon us. April 21st, is barely three months away, and it is not too early for each member to begin to draw his lines so as to arrange to leave his practice for the two or three days necessary to go to the famous pineland resort of Summerville, there to meet his brothers in professional communion for the benefit of himself, his colleagues, and last but not least, that he may thus improve his mind and broaden his perspective to the advantage of his patients at home.

No man is too busy to spare the time to improve himself, and no man should be contented with his present limitations. Tell your patients that you go to these meetings that you may be fitted to render them better service, and it may be that you can even use this argument for the collection of some of those old, long standing, overdue accounts which you have on your books.

But this is not all. Every member should bear in mind when he goes to these meetings, that while he may expect to learn new and modern methods and get new ideas for the practical prosecution of his work, he owes something in return. He must give freely of whatever practical or theoretical knowledge he has accumulated, and he must be ever ready to speak freely and unreservedly in the discussion of those things pertaining to the practice of his profession.

Let us all be there then, and get

the profit and pleasure that is certain to accrue from our annual meeting. Already the physicians of Dorchester county, assisted by the Charleston county members, have their plans all under way for the conduct and the entertainment of the coming meeting, and it is the hope and expectation of the officers of the association that this meeting will surpass any that has yet been held; and knowing the Summerville and Charleston men as we do, we think it is safe to say that the brightest expectations will surely be fulfilled.

Remember, the general session commences at 10 o'clock on the morning of Wednesday, April 21st, and the House of Delegates convenes at 2 P. M. on Tuesday morning, April 20th. Let everybody be there.

MR. ADAMS GONE WRONG.

A recent issue of the Review of Reviews remarks that McClure's Magazine for last July contains an article by Samuel Hopkins Adams "in which he presents certain plain unvarnished facts concerning our health boards." Mr. Adams has undoubtedly done a great service to the public in his popular articles exposing the nostrum business under the title of "The Great American Fraud," but in his recent essay, in McClure's, he goes out of his way to desert the field of "unvarnished facts," and makes a deliberately gratuitous excursion into the field of silly sensationalism. Note this excerpt:

It was in South Carolina that a medical politician, who served on the public health committee of the Legislature, addressed this question to a body of physicians who had come to appeal for certain sanitary reforms: "What do you want of laws to prevent folks being sick? Ain't that the way you make your livin'?"

We do not believe such an incident

ever occurred in the legislature of this state. We have had more or less intimate relations with the legislature during the past five or six years in connection with medical legislation and many important questions relating to state medicine, and it is strange that in the course of this connection we have never heard expressed anything approaching such a stupid sentiment, while Mr. Adams, in the course of a casual visit of a day or two, digs it up and serves it as a delicate morsel to a horde of more or less provincial and prejudiced readers.

This, however, is but a part of his offending. In another place he remarks that in Charleston the public schools are furnished with water from polluted cisterns, and adds, "therefore typhoid is not only logical, but inevitable." This may be true, or it may not, but it appears to us that the City of Charleston should make Mr. Adams and McClure's Magazine substantiate the statement on pain of being defendants in a criminal libel suit, with heavy damages attaching. We do not care, at this time, to go into a discussion of the Charleston water situation, but it is very certain that in the present circumstances, such a public statement as the above would be difficult, if not impossible, to justify.

Then, following the bent of the average casual Northern visitor to the South, the author of the article takes a dip into the wide, and to him utterly unknown, sea of the negro problem: "The frank statement or what may seem a brutal fact" is that "New Orleans, Atlanta, Charleston, or Savannah would be loath to diminish their negro mortality," and then the explanation is offered that the negro breeds rapidly and unless he dies rapidly, he would, in the cities, soon overwhelm the whites by sheer force of numbers. Of all the absurdly untrue

statements which we of this day and generation are permitted to read in the public press, this comes very near to being the limit of mendacity. It involves not only a charge of brutality, but of rank stupidity and shortsight on the part of white people of the South, and in fact is so obviously ridiculous that we know every intelligent reader who has the slightest acquaintance with conditions in the South can, for himself, stamp it as wholly and unqualifiedly false.

It might well be that the Review of Reviews be included among the defendants in the libel suit, and perhaps, too, the St. Louis Medical Review, which re-prints the Review of Review's article, particeps criminis.

Original Articles

PUBLIC SCHOOLS AND PUBLIC HEALTH.*

By W. J. BURDELL, M. D.,
Member Executive Committee State Board of
Health.

Lugoff, S. C.

An ex-superintendent of public instruction in Michigan says: "No work of the schools is of greater value than that pertaining to the public health. Two years have been added to the average length of human life during the last fifty years by the efforts of boards of health, physicians, scientists, and public education." This is a very marked gain, but it is but an indication of what can be done, and it is my purpose today to endeavor to point out to you

*Read by invitation before the S. C. Educational Association, at Columbia, S. C., January 1, 1909.

a few ways in which you can join in this great work.

It is conceded by everyone who has given the matter earnest thought that education is the best means of dealing with that class of diseases which is of most importance to the public health, namely, the "catching", or infectious diseases. "Transmissible diseases" is a better name for this class of diseases, for an infectious disease is a disease that is possible of transmission from one person to another, or from a human being to a lower animal, or from a lower animal to a human being. Manifestly if these diseases are possible of transmission there must be something that is carried from the sick person to the well one that causes the disease. We know that this is true, and in the case of most of these diseases we have discovered the something that is the cause of the disease. Knowing the cause we have but to know the means through which the cause is conveyed from the sick to the well in order that we may prevent its conveyance. In the case of most of these diseases we know all this, consequently we can prevent their spread. The existence of a case of one of these diseases today proves that some one, either through ignorance or through negligence, has not taken sufficient care in managing a previous case. The transmissible diseases are preventable. There are no qualifications to that statement. I also make the unqualified statement that every case of any of these diseases is unnecessary.

A word as to the importance of these diseases from an economic standpoint. In the vital statistics report of the state board of health for the six months ending June 30th, 1908, we find that there were 1,554 deaths from all causes in this state, and of these 677 died from

these diseases. Now I am sorry to say that only about one third of the doctors in the state reported, so these figures give only about one third of all the deaths. Multiplying by three, we find that there were 2,031 deaths from the transmissible diseases during the first six months of the past year, and as this report included only half the year, we will say that the total for the year was 4,062. Four thousand and sixty-two unnecessary deaths in one year in the little state of South Carolina! Figure each life as worth \$1,000, which is a very low rating, and we have a cost of \$4,062,000 for one year. Remember, this cost was due to the transmissible diseases, and could have been prevented. Why, my friends, if you figure the cost of one of these diseases alone, tuberculosis, at the same rating, you will find that we have an annual tax of \$1,750,000 from this one disease. Is this matter of any importance? Can you estimate in dollars and cents the cost in heart-aches, motherless children, fatherless homes, and grief stricken families?

What has this to do with the public schools? Just this. There is no better manner of combatting these diseases than to educate every man, woman, and child in the state as to the means of preventing these diseases. Surely that statement requires no argument. Where can these things be taught more effectively than in the public schools? You can not teach all the people in the schools it is true, but you have a better opportunity to teach a great number of them than you can find in any other way. The school child of today will be the man or woman of a few years hence, and the facts learned at school will stay with it. Again, the children will tell the parents of the things it learned

at school, and in that way the knowledge of these things reaches the home. Again, the school is one of the most potent factors in the spread of many of these diseases. Now, if the teacher is taught to recognize, or at least to know, the signs that would lead to a suspicion of a case of one of these diseases that might appear in his school, and is taught to know what to do to prevent a spread from that case, at the same time teaching his pupils the same things, would not this danger be minimized? Surely none but an affirmative answer can be given.

Now, would this plan be an experiment? It would not for the reason that many states have already enacted laws requiring that the teachers teach these facts. The first state to enact such a law was Michigan, and a few weeks ago I wrote the secretary of the Michigan state board of health, asking him if appreciable results had followed the enactment of this law. His reply was "Yes."

Mr. McElroy, Superintendent of Schools of Three Rivers, Mich., speaking of this law says, "No more important law has been enacted by the Michigan legislature than act No. 146." Mr. Pattengill, ex-superintendent of education of Michigan, says of this law: "A continuance of this sane and practical work cannot but be of inestimable value to the state," and continues, "there should be no let up in our efforts in this direction." Gentlemen, what has proven of value in Michigan, should also prove of value in South Carolina.

The role that the public schools may play in the perfecting of the public health is not limited to the transmissible diseases. You teachers have the first opportunity of detecting defects of

vision and hearing in your pupils. Recently I read a statement that there occurred annually in the United States 60,000 cases of blindness that might have been prevented. Oculists state that 60 per cent. of the blindness of this country could have been prevented. Many of these cases are due to the "Great Black Plague," but many are due to neglected myopia, or short sight. A child before it enters school does not have to make a continued, concentrated use of its eyes, consequently the majority of defective eyes are not detected before the child enters school. For somewhat the same reasons many defective ears are not detected until the school life begins, if then.

Some time since, the Board of Health of Minnesota sent out charts with directions for their use, to teachers throughout the state for the purpose of testing the eyes and ears of pupils, by the teachers. Cards were also sent for reports. While very interesting, time will not permit a study of the reports, so I will read at random: Teachers at Adrian report 130 examined, 111 normal, 19 defective eyes, none wearing glasses. In Duluth, examined 4443, normal 3613, defective eyes, 830, wearing glasses, 22, cases defective hearing, 185. Taking at random, six localities, including large cities and also country schools, I find that the teachers found that 20 per cent. of the pupils' eyes were defective, and that only 8 per cent. were wearing glasses. General statistics show that about 30 per cent. of American school children are myopic, and about 33 per cent. of all cases of blindness in schools for the blind are due to neglected myopia. Mark you, neglected myopia! It is reasonable to suppose that had it not been for the neglect, a majority of these unfortunates would have been en-

joying the benefits and pleasure of being able to see.

Neglected myopia may, and often does, result in total blindness, but there are other forms of defective vision, and other results of myopia. Whatever the defect, if the child cannot see well, it may appear awkward in games, and is laughed at. It is a poor player, and is not wanted in the school games. Children are far more sensitive than is often believed, and the unfortunate ocular defective shuns play, thereby losing the necessary exercise and pure air. Resorting to study, the blackboard is perhaps a blank from myopia, or study is distasteful because of the painful eyes, or headache or other forms of defective eyes. The child falls back in its classes, and is called dull, stupid, perhaps a fool. It becomes isolated in mind, morose, and perhaps morbid. Am I fanciful? Alas, no. Derided by companions, quarreled at by teacher, perhaps whipped by parents, and this treatment continued, while the undetected, perhaps unsuspected cause grows worse, morbidity is but a logical sequence. How short the step from morbidity to criminality! Have you doubts? It has been said that "lack of education is the main cause of the continued existence of a permanent tendency to crime." In the Bridewell, of Chicago, a school for boys under 16 years convicted of petty crimes, it was found that there were 48 per cent. of defective eyes and ears as compared with 28 per cent. in normal boys of the same age. Is it not said that figures do not lie?

Defective ears lead to about the same results as defective vision. Adenoids also are important, because they are one of the causes of deafness as well as other serious troubles due to faulty breathing

and consequent faulty oxygenation of the blood.

Suppose that in every school in this state were placed charts on which were printed letters of a certain size or sizes, and printed on the same chart were directions for using the chart in order that the vision of each pupil might be tested; could not the teacher detect many if not all the defectives in his school? Certainly all the myopes could be detected. Now, printed on the same chart are questions, with the significance of the answers, which would enable the teacher to detect other forms of faulty vision as well adenoids, and in addition to this the chart has directions for testing the hearing. Use these charts in the schools and report to the parent by note or otherwise that the child has this or that trouble and needs attention. Very simple, and, my friends, think of the great results that may follow! You may be the means of saving the eyesight of many who are doomed to blindness, or you may be the means of making a valued and honored citizen of one who under present conditions is doomed to a life of crime, or perhaps a worthless clod.

Is this a theory? By no means. Several of the states have enacted laws requiring just what has been proposed here. Other states and many municipalities require a physician to inspect the pupils. The latter plan is the better, but for obvious reasons it is impractical in this state at the present time.

Pardon me for presuming to suggest to this body, but in view of the importance of the matter, I wish to suggest, or rather request that this association will adopt a resolution endorsing a proposed bill that will be introduced at the coming session of the general assembly,

which bill will provide for just such measures as I have outlined this morning. A resolution from this body would have great weight with the members of the assembly, and surely the proposed legislation is, or would be, of inestimable value to the state. Such a resolution adopted by this association and sent to the governor or to the superintendent of education would be of value to the state board of health, in its efforts to get this bill through.

Now, in conclusion, let me urge that you teach hygiene in your schools. There is no great necessity of your teaching anatomy, or the chemistry of digestion, or the various facts concerning the nervous system, that you can learn from the books on physiology. These are interesting and valuable, but the simple facts as to cleanliness, of mind as well as person, the need for exercise, and exercise taken in the open air is the best of all. Teach the need of pure air. Try to overcome the old belief that night air is poisonous. Teach the need of ventilation. Remember that a sound mind will stand a far better chance if it is in a sound body. Be on your guard lest, in your zeal to turn out bright scholars, you train the mind at the expense of the body. I beg to quote from an essay of Prof. Waldo, of Kalamazoo, Michigan, and I will state that this advice is intended for the teacher:

"Be much out of doors. Two hours in the open for every teacher should be the minimum. Go straight to Nature. The blue sky, the green fields of spring, the brown woods of autumn are all for you. There is health in the smell of upturned soil and added vigor in the field of waving grain. The dew, the rain, the snow are yours; and yours the running brook, the flowing river, the trees, the birds and all living things.

Nature is a great builder of brawn and brain. And finally you must have faith. * * * In all ages men and women have been cured of functional ailments by faith, faith in a bone, a stick, a stone. Not the stone, the stick, the bone, but faith made the cure. But it is worth while to have a reasonable faith; faith in Nature; faith in the known laws of physical health and growth that have the endorsement of scientific students of human physiology and hygiene; faith in the increasing betterment of mankind; faith in yourself and in your own consciousness; faith in God, in His wisdom, His power, His love, and faith in the best teaching of the greatest Teacher known to man—the golden rule of the Man of Galilee."

The highest, noblest calling known to man, is the ministry, the ambassadorship of Christ. Next I think is the relieving of human suffering and sickness, and surely the prevention of sickness and suffering in our fellow-man is the highest work of a physician. If I have shown you today, a way in which you of the noble profession you claim, may come over and join us of the medical profession in this work of preventing sickness and suffering in thousands of our fellow-men, I have achieved my object.

ARTERIO-FIBROSIS.*

By THEO. A. QUATTLEBAUM, M. D.,
Graniteville, S. C.

Since the saying "A man is as old as his arteries," contains a large element of truth, and because of the fact that a majority of men die directly or indirectly through fault or disease of

*Read before the Lexington County Medical Society, October 5, 1908.

the circulatory system, we should be impressed with the great importance of the early detection of lesions of this apparatus and their proper treatment. The heart and blood vessels are the hardest worked organs in the body; they never rest day or night, though under normal conditions their nocturnal hours are a little easier. While brain and muscle rest from their labors, and recuperate for the next day's work, heart and blood carriers simply take a little longer to send a given amount of blood to a distant part of the blood-thirsty body, and to return it again to the heart—they never stop, they only slacken their paces. Through this great system pass tonics for the strengthening of the body and toxins for its destruction; elements that sustain, and substances that destroy float along together in the red current. Things that savor of life and also of death commingle as they are borne along hither and yon. We are not surprised to learn that those individuals whose "tubing" was inherently bad, or who have subjected them to unequal burdens should show signs of this excessive wear and tear of vessels. The blood carriers are subject to a number of lesions and diseases, but of these it is desired to discuss but one. So the writer presents for your consideration the subject of "Arterio-sclerosis."

Definition. Simply as a working definition of arterio-capillary-fibrosis, we may say that it is a degeneration, usually hyaline in character, of the coats of the arteries, especially the inner and middle, with loss of elasticity, and thickening of the walls, and resulting in more or less rigidity.

Causes. These are many, and in a particular case it may be due to a single factor or to several. There seems to be a certain hereditary tendency in

some families to early arterial degeneration. The long continued poisoning of alcohol, of syphilis and of gout, overfilling of the blood vessels by excessive eating and drinking, especially in stout individuals, may cause it. Chronic lead poisoning and auto-intoxication are at times responsible. Hard muscular work, greatly increasing blood pressure, also may induce or, at least, be an important factor in producing the condition. Chronic nephritis may cause it, and in turn kidney lesion may be due to the changes in the arteries. That simple increase of intravascular pressure alone may produce the condition mechanically is not proven, though the fact that typical arterio-sclerosis is rare in the pulmonary arteries, and its branches, except when mitral or pulmonary lesions increase the tension in the vessel, is strong evidence in its favor. Anyway, it is not doubted that increased blood pressure is an important factor in the production of arterio-sclerosis, prolonged high pressure in the veins, as for example, in cirrhosis of the liver with resulting congestion of the portal vein, seems able of itself to produce phlebosclerosis which is analogous to arterio-fibrosis. The intravenous injection of adrenalin is given as a cause of this lesion, several investigators having claimed to produce this condition in rabbits by this means. Coplin has observed that a few patients suffering from this arterial lesion have normal adrenals.

Pathology. This is not simple but seems to be mixed, the same conditions not being found in all cases, nor are the end results uniform. Thoma divides the cases into primary, or those cases in which there are local changes in the vessels resulting in dilatation and consequent compensatory increase of tissue in the intima; and secondary, cases in

which the local changes are due to increased peripheral resistance to the blood current. Three types are recognized—senile, nodular and diffuse. The nodular variety is circumscribed, the nodule being small in size, though a great number of affected points may be found in a given area. This form, according to Osler, is in reality a localized inflammation of the middle and external coats. This mesarteritis and periarteritis results in a local infiltration "chiefly about the *vasa vasorum*." This inflammatory degeneration produces a weak place in the vessel, and nature undertakes to strengthen the weakened point by a proliferation of the subendothelial tissues of the intima or internal coat. This compensatory thickening is overdone, and hence there is an overfilling of the pit or depression made by the effort of the blood to push through the injured wall and a rough elevation is formed. The elevations appear as flat projections "yellowish or whitish yellow" in color and hemispherical in outline. They may be quite numerous, and the larger vessels may be studded with these nodules. Later on they may undergo fatty degeneration and become so soft that they break up into granular material "forming the so-called atheromatous abscess." If the blood pressure should be high before nature has time to repair the damage, a rapid dilatation of the artery or an aneurism may result. The pathology of the senile form is an advanced stage of the nodular variety. The nodules undergo calcareous degeneration, and become rough, hard plates lining the lumen. These, if thickly placed, produce the hard pipe-stem artery. The writer had one case of this sort. The radial felt like a tendon. The vessels become tortuous, thin walled dilated, many atheromatous abscesses

may be present, or if they rupture into the lumen form ulcers. Atrophy of kidneys, liver and all organs generally accompanies this kind. This variety is nearly always limited to men of advanced age. "The pathology of the diffuse form is essentially that of hyaline degeneration of the structures of the media, with a great increase of the connective tissue of the intima—a general sclerosis of all organs." The heart in this group is usually greatly enlarged and fibroid myocarditis is present. "The semilunar valves are sometimes opaque and sclerotic, and may be incompetent." Extensive sclerosis of the kidneys with adherent capsule is the rule. This group occurs in middle aged men between 40 and 55, though Councilman had one case in a negro of 23. The writer had a case at 27, and knows of one of perhaps 23-24.

Symptoms. There are four pathognomonic symptoms, according to Osler. They are increased arterial tension, a palpable thickening of the arteries, hypertrophy of the left ventricle, and an accentuation of the 2nd aortic sound. The high tension pulse "shows a wave slow in its accent, enduring, subsiding slowly," and in the interval between the beats the vessel remains "full and firm." In the pipe-stem artery the pulse wave is felt beyond the compressing finger, no matter how firm the pressure. Of course a high tension often does exist without any sclerosis; but a persistent high tension usually means a fibroid artery. While a high tension pulse nearly always accompanies sclerosis, it is not invariably present. The writer recalls one case in which it was low. A sure test of sclerosis is the ability to definitely feel the artery roll under the finger after the pulse is cut off—"a palpable thickening of the

artery." Hypertrophy of the heart, the third pathognomonic symptom, is due to peripheral resistance and faulty valves. "The impulse of the enlarged organ is heaving and forcible," and the apex is found an inch or more to the left of the nipple line. The fourth cardinal symptom is a sharp ringing second sound, made by the quick forcible closure of the aortic valve, due to the sudden rebound of the blood current from the great peripheral resistance. The symptoms other than those given are very variable, depending upon the organ involved. If, for example, the heart is most seriously affected the symptoms of chronic valvular disease will predominate. If the kidneys have suffered most, chronic nephritis presents its symptomatology. But as a common experience your patient will usually, except in the last stages, complain of fatigue, weakness, of indigestion, and dyspnoea, dizziness, of being easily some loss of weight possibly. A symptom which has presented itself in several of my patients, is sudden muscular weakness, and loss of sensation, usually in one leg. This is not a paresis probably, for it will pass in a few hours or after two or three days. It causes the patient to think himself the victim of paralysis, however. This has occurred in so large a proportion of my cases, that it is one of the questions always asked the patient. You will often find that a patient who complains of feeling bad, some swimming in the head, and possibly some slight oedema of the ankles--though swelling is seldom a prominent symptom save in chronic heart disease--but with no definite trouble so far as he knows, to be suffering from arterio-fibrosis. The disease may exist for years unknown to the patient, giving him no cause to seek

medical advice. Bronchitis, with a thin watery expectoration, has been observed in several of my cases. Angina pectoris is a not infrequent symptom, if there be present atheroma of the coronary arteries. A symptom that is claimed to be of prime importance, long before any thickening takes place, is prolongation of the first heart sound.

Treatment. This, in the latter stages, involves that demanded by the symptoms of the various organs most seriously diseased. In all cases a quiet, well regulated mode of living, avoidance of over-eating, absolute abstinence from alcohol should be insisted upon. The drug treatment, aside from the special treatment needed for particular organs, in a general way is nitroglycerine to lower the high blood pressure, iodide of potash, iron and a diuretic. Liquid iron and acetate of ammonia (Basham's mixture) is among the best combined iron tonics and diuretics. Compound licorice powder to keep the bowels open is good. The skin should be kept active by warm baths. Last month, a man of 45 probably, whose work was rather heavy, came to the writer to be treated for indigestion. He complained of shortness of breath, weakness and slight dizziness, and considerable loss of weight. An examination showed that arteriosclerosis was the real trouble, and the indigestion only a symptom. He was given iod. pot. and Blaud's pills. In ten days he said he felt like a new man.

The subject has not been fully gone into. My reasons for bringing it before you are--its great importance, its frequency, and the fact that it is constantly overlooked by men of my acquaintance. If I may be able to persuade you to acquire the habit of looking for this disease, particularly in men of middle life who say "I don't know what is the

matter, but there is something," or who can describe some of the symptoms given above, something substantial has been accomplished. The writer invariably examines for this malady in men who present the least evidence of being afflicted with it. Never fail to test the radial artery by compressing the vessel and palpating beyond. Look for tortuous temporal arteries, that stand out prominently, and you will be surprised to find how common this disease is. If you can feel the artery roll under the finger after the pulse wave is cut off it is sclerosed.

THE RELATION OF PHYSICIANS TO EACH OTHER.*

By J. G. DUCKWORTH, M. D.,
Anderson, S. C.

Defining the word "ethics", Webster says: "It is the doctrine of morality or correct manners, a system of moral principles, a system of rules for the regulation of the actions and manners of men in society." On the subject of medical ethics so much might be said, and so little known, that a whole course of lectures is needed.

What are the essential elements, or the requisites that constitute an ethical man?

We would suggest that he must be a man of integrity; he must be a just man, an equitable man; he must be a man of friendly relations; he must be a gentleman—the principles of right must characterize him in his dealings with his fellow-man.

Now as to integrity, I would say it is the foundation of all that is high in character among mankind. Other qual-

ties may add to its splendor, but if this essential requisite should be wanting all the luster fades. Integrity without knowledge is weak. Knowledge without integrity is dangerous.

Let a man have the reputation of being fair and upright in his dealings, and he will possess the confidence of all who know him. The world is always asking for men who are not for sale, men who are honest, sound from center to core, men who will condemn wrong in friend or foe, men who will stand for the truth, and tell the truth, men who neither brag nor run, neither flag nor flinch, men who have courage without shouting to it, and men in whom the principles of fair dealings are found, and the spirit of the golden rule.

Integrity should characterize our relations to each other as medical men. Equity and justice should dominate our lives, and in the treatment of each other we should be philanthropic. We should not judge each other too harshly. Judgment is too often absurd in its use, especially when used to judge others. We approve of others' judgments in its proper use, when not used critically. We often judge unwisely and approve or condemn men by their actions. We all have good and bad in us.

There are men, and their number is not small, who make principle and right depend on policy. They are honest when they think it is policy to be honest. They smile when it is policy, though they design to stab the next minute. Some men are honest when it is plainly convenient and plainly profitable; when honesty costs nothing and will pay well, they are honest, but when policy will pay best, they give honesty the slip at once. Justice and honesty are always and eternally best, as every man in this hall can attest. Then is it not incum-

*Read before the Anderson County Medical Association, April 6, 1908.

bent upon each of us as professional men to deal with each other on the principles of equity and justice?

Friendship and kindly feelings should dominate our lives. Real, genuine friendship should exist and abound among us. It should bloom among us in all seasons. It should flourish on the snow-capped mountains of northern Russia as well as in the more favored valleys of Italy, everywhere cheering us by its exquisite and indescribable charms. We are aware of the fact that there are in all vocations of life men of unscrupulous character. It behooves us, therefore, to be careful in whom we place confidence. Caution has been termed the parent of safety. The poet would say:

"Disguise so near the truth doth seem
to run,
'Tis doubtful whom to seek or whom to
shun.
Nor know we when to pose or when to
strike,
Our friends and foes they seem so much
alike."

No one can be happy without a friend and no one can know what friends he has until he is overtaken by misfortune or adversity. It has been observed that a real friend is somewhat of a ghost or apparition, much talked of but hardly ever seen. This may not be exactly true. It must however be confessed that a friend does not appear every day, and he who finds one in reality ought to value the boon. We should be real true friends, not pretenders. We should render assistance at all times. Knaves help themselves by pretending to help others. Great ingenuity, industry, and perseverance are the modes of attack. False sympathy, flattery, and concern for interest, bare-faced impudence and hypocrisy make their attack in front. Whilst

slander, falsehood, dark innuendos and damning poisons assail the rear.

Pliny says that Julius Caesar blamed so ingeniously that his censures were mistaken for praise. Some of us at the present day praise only to reproach. Some men use envenomed praise which by a side blow will expose in the person they commend such faults as they dare not in any other way lay open. Deep is the poison of calumny infused in this way, the venom and the cunning and the knave combined. He that sees ever so astutely, ever so finely into the motives of people, may possibly be entirely ignorant of his own. It is by the mental as well the corporal eye; the object may be placed too near the eye to be seen truly, as well as too far off. Let us look at each other to magnify the brightness and discover the good qualities and exercise our propensity to teach charity, forbearance, forgiveness and all the virtues that adorn our profession.

Finally, Mr. President, I wish to state that our relations to each other should be gentlemanly. A gentleman is a human being combining tenderness and courage. He is a modest man and a courteous man. He is slow to surmise evil of his brother. He has a keen sense of honor. Humanity is sacred in his eyes and thence proceeds politeness, kindness and charity. He is courteous in his deportment towards a brother practitioner. In a consultation, he is tactful; the details with him are those of a dignified conference with his colleague which goes a long ways towards a favorable impression in the profession, as well as among the laymen; and certainly it leaves a more savory taste with all than would be imparted by one awkward dogmatic "know-all," who does not know that other men have informa-

tion, training, and gentility.

The science of medicine not being an exact science, admits of many differences, and it becomes a question of judgment and opinion, backed by deductions from our various view-points. We will have our doubts, differences, individual ideas or theories, but we should be broad enough to tolerate another's opinions. Perhaps some of us should be warmer along this line.

THE RELATION OF THE PHYSICIAN TO HIS PATIENT.*

By J. M. RICHARDSON, M. D.,
Anderson, S. C.

Let us not pass over this subject lightly, but consider it well in all its bearings; for there are few relations in life more sacred, few that should appeal more strongly to man's best principles and loftiest sentiments than that which the physician bears to his patient. Our profession has always been characterized as second only to the holy calling of the ministry. As the pastor ministers to the soul, the physician does to the person; and he who does not hold in reverence his profession is not worthy to be admitted to any home as family physician.

In the first place, his being chosen to minister to the family implies not only perfect confidence in him as a gentleman, but perfect faith in his ability to diagnose and cure; for to him is entrusted the life of the patient, as far as human skill can avail.

Then the doctor should be sure that he is the patient's first choice, that he is the one in whom the patient has the highest confidence. Being sure of

this he feels free to go ahead on his own judgment. Sometimes he is called in to minister to some other physician's patient; and, for the sake of humanity as well as courtesy to his brother practitioner, he goes; but, if he is only called because the other man was not to be had, he should turn over the case as soon as possible, for he can accomplish little without the entire confidence of the patient. It has often been said that medicine does not have the same effect if the patient has not entire confidence in the doctor, and it may be true to a certain extent, but I doubt if this rule would apply to calomel and croton oil.

Again, the true physician has somewhat of a fatherly feeling for many of his patients, especially when he has doctored them in childhood through their baby diseases—colic, measles and whooping cough; and later, when severe ills befall them he anxiously watches them, weighing every symptom, feeling the fearful responsibility of a human being dependent largely upon his skill. Then when the crisis is passed, the fever has disappeared, and the danger is over, a relieved look comes over the mother's face, then there is joy in a physician's work, a joy in which no thought of dollars and cents enters.

Again, the physician must often be the counsellor and adviser of the patient, entrusted sometimes with most private family affairs, sometimes secrets that would never be divulged to any other. A confiding patient places himself completely at the mercy of the doctor, and no man with any shred of honor could betray such trust.

Then, too, in the matter of compensation the patient is largely at the mercy of his physician. He can not say to him he will take five dollars worth of

*Read before the Anderson County Medical Society, April 6, 1908.

visits or of medicine, as he could in ordinary business deals, but the doctor must use his own discretion as to the frequency of visits and number of prescriptions, and upon this in some measure depends the size of the bill. Furthermore there is generally in every town or community a fee bill, or uniform charge customary among physicians; and the patient is supposed to know this. It is right that he should know it, for it is a business proposition, above board. The honest, right-thinking patient expects to pay this, for he understands that the physician's time is valuable and "the laborer is worthy of his hire." But he expects the physician to deal fairly with him; and when he has paid \$2.00 a visit or \$1.00 as the case may be, he believes that to be all. Suppose, however, that the physician has gone around and has had a private understanding with his druggist, behind closed doors, an understanding that neither he nor the druggist would dare let the public know, viz: that the physician is to receive a commission on his prescriptions. The majority of those present will doubtless agree with me that it is a form of graft, petty, dishonest and disreputable. As was said before, the honest patient is financially, as otherwise, at his mercy; and, as there is an unwritten law in the code of honor that no gentleman strikes a foe who is entirely at his mercy, how much more contemptible is the man who takes advantage of his trusting friend and suffering patient!

The following extract, taken from a paper read by Dr. C. B. Earle, of Greenville, before his county association last December, is timely and to the point:

"I know that some physicians have been in the habit of collecting fees from druggists as a commission on prescriptions written. That has been done in my own town,

and I suppose is still the practice, the druggists adding an additional charge for his prescriptions, or substituting cheap drugs that his own profits may be the same. The same is the custom among certain hospitals and institutions, especially for the care of the different habits, the sending physician being paid part of the money received from the unfortunate victim.

"That this practice is wrong I think even those engaged in it will admit, but the degree of criminality and the proper methods to prevent the same would possibly give rise to a considerable difference of opinion. To me it seems that the practice may be compared to a receiver of stolen property and a sneak thief the specialist who gives a commission being in a similar position to the latter. More cowardly than an ordinary thief because no bodily danger is incurred; more criminal than a highwayman because advantage is taken of the confidence of a trusting patient; more dangerous than a manipulator of a shell game or a professional gambler because an entrance has been had into one of the most honorable professions, when an opportunity is given for the insinuating influence of this nefarious practice to be worked without fear of exposure.

"As to the methods of correction, of course the first and most important is for each member of the medical profession to see that he himself is free from guilt and that he does not participate in the practice of receiving a rebate or commission from any institution or body of men or specialists in any branch of medicine, and that he should send his patients only to those in whom he has implicit confidence. In addition I think that each county society should promptly expel any member known either to receive or give a commission, and if there is nothing in the constitution or by-laws of the society regarding this it should be added without delay."

Genuine Rabies: Fort Motte, Dec. 1.—About three weeks ago a small dog owned by Richard Pennington was running his chickens. He proceeded to catch the dog, and punish it for the offense. While whipping the dog, he was bitten on the hand. At the time there appeared to be nothing

wrong with the dog, but subsequently it died. His family tried to prevail on him to take treatment, which he did not do. He was taken sick on Sunday and died this morning. Drs. Wolfe, Fairey and Symmes pronounced it a genuine case of rabies.—Columbia State.

Clinical Notes

A CASE OF ECLAMPSIA.

By R. LEE SANDERS, M. D.,
Anderson, S. C.

Female, Age 20. Saw her at 8 1-2 months pregnant. General oedema, more marked in feet and legs; complained of fullness in lower abdomen and nausea at times. Frequent micturition attended with some pain. I prescribed diuretics to no avail. In a few days repeated my order and gave small doses of calomel. No improvement of condition. Was called at 2 a. m. two weeks from first call; found patient in labor which proved slow and tedious. Delivered her with forceps at 11 a. m., with living baby. Patient reacted well. At 3.30 p. m. began complaining of pain in head. Four o'clock found her in hard convulsions, recurring every ten minutes until she had five. Gave a few whiffs of chloroform and controlled the convolution that was on her then. Performed venesection and withdrew a pint of blood. Began wrapping her in blankets wrung out of hot water, whereupon she began to sweat, which continued for an hour and forty-five minutes. Meanwhile I dusted about ten grains of calomel on the back of her tongue. In three or four hours bowels acted freely; urinated several times during the remainder of the afternoon and evening; regained consciousness about 11 p. m., after a period of seven hours coma. Next day rested well and for six days had uneventful puerperium, save that the lochia were almost entirely suppressed. Diagnosis up to this point seems clearly a case of toxemia of pregnancy shading off into the dark cloud of eclampsia. On the following phenomena I wish a diagnosis or an opinion:

On the sixth day about 4 p. m. patient had a chill and I saw her at 5.30, tempera-

ture 106 F. Two hours cold sponging reduced it to 104 F., where it remained for ten days almost unchanged at all times of the day and night. Lochia never did return and have not yet. Kidneys acted freely and bowels in good condition. Abdomen enormously distended and decidedly tympanitic. Respiration normal, and pulse from 108 to 130. No pulmonary manifestations such as rales or cough. Normal percussion note over both lungs. Ears gave no trouble, no signs of otitis media. I might say incidentally that my dose of calomel was followed by a marked case of salivation.

What is your diagnosis?

(Society advanced its opinion that the case was one of absorption fever or sapraemia).

HYPERTHENIC GASTRITIS WITH GAS-TROPTOSIS—THE RESULT OF CHRONIC MALARIA.

By F. M. DURHAM, M. D.,
Columbia, S. C.

On November 4, Mr. S., age 26, weight 126, mill operative, was referred to me by Dr. G.

Family history, negative. Personal history: perfect health until his present illness began two years ago with an attack of malaria; he has had chills at intervals ever since and has been unable to work; he complained of pains in the stomach one or two hours after eating, a feeling of fullness, shortness of breath, palpitation of the heart, constipation, nervousness and a capricious appetite; did not drink tea, coffee, or alcohol, but smoked cigarettes.

Physical examination showed: Complexion of muddy malarial color; sclera of a bluish white hue; teeth good; heart and lungs were normal; he had a scaphoid abdomen, enlarged liver and spleen; the lower border of the stomach was two inches below the umbilicus; patella reflex was increased.

The patient was given the Boas-Ewald test breakfast, and examination of stomach contents resulted as follows: Food well mixed and divided; fluids in excess of solids; odor and color, normal; mucus, considerable quantity; total acidity, 74; free HCl, 34;

stomach motility was poor.

The urine contained some albumen and a considerable amount of indican. He was given the following treatment: Gastric lavage every morning. A Rose bandage was applied to the abdomen.

Rx. Magnesia ustae, dr. iv.

Cretae preparatae dr. iss.

Bism. subnit., dr. ii.

M. et ft. chart. no. xii.

Sig. one powder mixed with a wine glassful of water half hour after meals.

After two weeks of this treatment gr. viii. muriate of quinine was given every morning after stomach was washed, as he had two malarial paroxysms, and it was thought that his stomach could now tolerate quinine. He has not had a return of malaria in six weeks. He now weighs 140 pounds. Appetite and digestion are good. Lower border of stomach is on a level with umbilicus.

The object of this report is to call attention to the necessity of good stomach digestion in the treatment of chronic malaria.

FOREIGN BODY IN TRACHEA—DEATH.

By JNO. G. PITTMAN, M. D.,
Gaffney, S. C.

I have a case I wish to describe and I would like some idea about same.

Child, boy, two years old, got something in his mouth. Mother tried to remove it, but child sucked it into "windpipe." This occurred at 11.30 a. m. Other physicians were summoned, as I was in the country, and they found child cyanotic and with air almost completely cut off. They administered hypodermic injection of 1-10 gr. apomorphia. I saw child at 3.30 p. m., and it was then breathing rapidly and with the dyspnea of an ordinary case of asthma, but was not cyanotic at all, only a little pale, lips a good pink. Father absent from town and mother opposed to operation, child too irritable for any examination of lungs. There was some strident breathing, as of spasm of vocal cords. Physicians present had already made a digital examination with negative results. As there was no cyanosis and breathing sufficient, though labored, I did not urge operation or laryn-

goscopic examination. I could not say that body was not at or below the bifurcation of trachea. I saw it with the other physicians at 7 p. m., condition same, and with directions to call me at the slightest sign of cyanosis or increased difficulty in breathing, I left. The child died at 8 p. m., without cyanosis or any struggle whatever—"just passed right off." At autopsy I found peanut hull, one half of one side, in trachea just below vocal cords. Certainly tracheotomy should have been done, but the question is, did the child die of strangulation? If so would you not have expected convulsions and cyanosis?

Correspondence

SAMBON'S ARTICLE ON PELLAGRA.

Columbia, S. C., Dec. 23rd, 1908.

To the Editor: Sambon's article was an original contribution to the British Medical Journal, as I recollect. Sambon, by the way, is a Frenchman by birth, an M. D. from the University of Naples, Italy, and now one of Sir Patrick Manson's research men in London and lectures on tropical medicine in the London School of Tropical Medicine. The chief value of his article, it seems to me, is that it keeps us from accepting the maize theory, in toto, of the causation of pellagra, without further proof. It keeps the question open in spite of Lombroso's great reputation.

Did you see the full account of the inquiry from the Egyptian Government in the News and Courier of yesterday about our Pellagra Conference? I gave Gov. Ansel a copy of your Pellagra Issue to forward to Cairo.

Dr. Williams (State Health Officer) told me last night that he had received 269 replies out of 942 inquiries sent out to physicians, 89 affirmative; 180 negative. That is, about 27 per cent. of the doctors in South Carolina report the presence or recognition of 187 cases of pellagra. The disease is reported from practically every county in the state. Of the 187 cases, 109 were white, and 78 colored; 130 females, 57 males. A fair estimate would be for 500 cases of pellagra in South Carolina for

1908. I think this will be Dr. Williams' conclusion for his report.—J. W. Babcock, M. D. (An abstract of Sambon's article will appear in the February issue of the Journal.—Ed.)

in South Carolina are doing some good work in pellagra, and I hope you will keep it up, but I hope that down in Alabama we will be ahead of you in finding the cause.—George H. Searcy, M. D.

PRIORITY OF PELLAGRA DIAGNOSIS.

Spokane, Wash., Dec. 27th, 1908.

To the Editor: I am sending you a reprint of my second article on pellagra, which was published in the December number of New Orleans Medical and Surgical Journal.

I have been quietly giving all the time and means I could afford to the study of this disease since I first reported its presence in the United States at the Alabama Association in April, 1907, and I have proven to my own satisfaction that the cause of pellagra lies in eating damaged corn. I believe the toxin comes from some fungus growth, whether it is the corn smut or not, I am not yet sure, but it is a substance similar to that causing ergotism.

I believe that the south is up against a disease which will be more serious in its consequences than malaria, hookworm, tuberculosis or any other disease common down there. I am glad the physicians of South Carolina are doing so much to make this disease known and trying to get at its cause. Too much cannot be said of the good work of Dr. Babcock and others down there. However, I hope you will give us in Alabama some credit for what work we are doing down there in the study of pellagra. As for myself, I still claim priority in making known the prevalence of pellagra in the United States. A sporadic case or two may have been reported before my paper in April, 1907, but with the exception of Dr. Harris' case, in Atlanta, these were imported cases; and as for Dr. Harris, it was diagnosed "ankylostomiasis, with symptoms resembling those of pellagra." (See his original article). So I claim that I first made known the fact that pellagra was present in the South and was a disease to be seriously considered by Southern physicians.

I hope next summer to be able to return to Alabama and continue the study of the cause of this disease.

In conclusion let me say that you people

(In an editorial in the November issue of this Journal, credit was given to Dr. Searcy for his early diagnosis of pellagra. The South Carolina doctors do not claim priority of diagnosis, though their work was done entirely independently and without knowledge of the work being done in Alabama. We believe they do claim, however, and evidently in all reason, that they were the first to identify the disease by personal comparative study in Italy, thus removing all doubt of the true nature of the affection.—Ed.)

County Societies

LETTER TO COUNTY SECRETARIES.

The following letter has been issued from the office of the Secretary of the South Carolina Medical Association to every County Secretary in the State:

Sumter, S. C. Jan., 11, 1909.

Dear Doctor: Another fiscal year has started for our state association, and I ask earnestly for your hearty co-operation to make it a successful one. Your county society's success rests largely with your labors.

The record of members in my office are in many cases incomplete, simply because the county secretary does not furnish them to me. This is not fair to the county member, for when information is asked from me as to physician's record by insurance companies, for directory information, or for the American Medical Association, the absence of this information may result in a financial loss to your member.

Please send me by return mail, if possible, the new 1909 roster of your members. Impress upon your members the fact that their names cannot appear upon your roster, if their dues are not paid.

Send the state association fee, three dollars (\$3.00) per member, to Dr. C. P. Aimar, Treas., 4 Vanderhorst St., Charleston, S. C.

Please notify me of any changes of membership or change of addresses. I want

to keep in touch with your office all the year.

Will you work with me for harmony in the medical ranks and the elevation of our profession?—(Signed) Walter Cheyne, Secretary S. C. Med. Assoc.

ABBEVILLE COUNTY.

The Abbeville County Medical Society held its first meeting for this year today in the office of Dr. G. A. Neuffer. The meeting was well attended and Dr. J. W. Wideman read a very interesting paper on the management of "Complicated Obstetrical Cases," also reported three complicated cases he had had recently. This paper was very timely and was discussed by a majority of those present.

Election of Officers.

The following officers were elected for the year 1909: President, Dr. J. B. Britt; vice-president, Dr. J. R. Bell; secretary, Dr. C. C. Gambrell; treasurer, Dr. W. D. Simpson; delegate, Dr. W. D. Simpson, and Dr. C. C. Gambrell alternate. Our society has started off for 1909 and we are hopeful of making this the most profitable year of our existence.—C. C. Gambrell, M. D., Secretary.

AIKEN.

The Aiken County Medical Society held its regular meeting the first Monday in January. Both the attendance and the "esprit du corps" were very gratifying to the officers. "The Prevention of Tuberculosis" was very practically and helpfully discussed by the regular appointees, Dr. Walden and Dr. Fillmore Moore. Others entering into the discussion were Drs. C. F. McGahan, T. G. Croft, Theo. A. Quattlebaum, Comey, B. H. Teague and W. D. Wright. Upon motion of Dr. Croft it was resolved that this society endorse the efforts of Dr. Moore to form an anti-tuberculosis league under the auspices of the state league and that the members of the Aiken County Society become members of the league.

A Live Society.

It is natural for every frog to praise his pond, but the scribe verily believes that his own society is one of the best in the state. It is the purpose and ambition of the new officers to make this the best year in the history of the society. Of course the laud-

able object cannot be attained unless the individual members give their aid in every way. It was the pleasure of the society to have with them Drs. Comey, Southgate, and Leake who are down from the North for the winter, and Dr. Carley, a native South Carolinian.

Election of Officers.

At the annual meeting in December the following officers were elected to serve during 1909: President, Dr. C. A. Teague; vice-president, Dr. W. A. Whitlock; secretary, Dr. Theo. A. Quattlebaum; treasurer, Dr. H. Hastings Wyman, Jr.; delegates to state association, Drs. W. A. Whitlock, and Theo. A. Quattlebaum; board of censors, Drs. H. H. Wyman, Sr., T. G. Croft, A. A. Walden. Scientific Committee, president, vice-president and secretary. The dinner committee consists of Drs. H. J. Ray and B. H. Teague. The society regrets the resignation of Dr. A. Holsonbake, because of ill health, and the transfer of Dr. Milhouse to Richland. To offset these losses we have gained Drs. T. C. Stone and Dr. D. Hoster Swengel, the former locating at Aiken and the latter at Vaucluse.—Theo. A. Quattlebaum, M. D., Sec.

CHARLESTON.

Election of Officers.

The annual meeting of our society took place at the Commercial Club on December 14th. The election of officers resulted as follows: President, John L. Dawson; vice-president, A. E. Baker; secretary, A. J. Jersey; treasurer, Rowland Alston; censors, Lane Mullally, C. W. Kollock, W. H. Johnson; commissioner to Roper Hospital, T. P. Whaley; trustees to Roper Hospital Fund, A. J. Buist, and J. C. Sosnowski; librarian, John Forest; delegates to state association, T. G. Simons and J. W. Burns.

After the business had been transacted a delightful smoker was enjoyed by all. The feature of the social session was the satire by Dr. Kollock, "The Microbes Convention". The annual report of the Board of Commissioners of the Roper Hospital reflected credit on its management, showing a net profit for the year.

The Medical Club.

The Medical Club had a pleasant session Jan. 4th, at which Dr. Sosnowski read an

interesting paper on spina bifida. There was some talk of increasing membership but nothing was done, the matter being referred back to Dr. Buist for a subsequent report.

"Mobe"ing to Summerville.

Some days ago a number of the physicians made an automobile trip to Summerville. These trips are becoming very popular. As many cars as can be gotten together leave Charleston about midday and reach Summerville in time for dinner, returning home by dark. The excellent work of the Sanitary and Drainage Commission on the Summerville highway has made the greater part of this run very pleasant. The features of this trip in question was the demonstration by Dr. Burn of what his machine can do in a sandy road and Dr. Mullanly's explanation of "Why is the Fourth of July." Ask him.—Allen J. Jersey, M. D., Secretary.

CHESTER.

Election of Officers.

The Chester County Medical Association met on January 4th, the principal business being the annual election of officers, which resulted as follows: President, Dr. J. G. Johnston; vice-president, Dr. D. A. Coleman, of Blackstock; secretary and treasurer, Dr. W. B. Cox; censors, Drs. C. B. McKeown, of Fort Lawn, H. E. McConnell and R. L. Douglas, of Rodman.

The committee appointed some time ago to secure a speaker on tuberculosis and make arrangements for a public meeting reported their inability so far to secure the man desired. The committee was continued, and the meeting will be held in the near future.

At the close of the meeting the body adjourned to the Mitchell hotel, where they were entertained at a dinner by the outgoing president, Dr. W. DeK. Wylie of Richburg.

DORCHESTER.

The Dorchester County Medical Association held its first meeting of the year in Summerville on Monday evening, January 4th, with the following members present: Drs. F. Julian Carroll, W. F. Graham, Carlisle Johnston, J. B. Johnston, H. B. Lee, Edmund W. Simons, Elias D. Tupper, and

W. P. Porcher, of the Charleston Society.

Preparing for State Meeting.

Dr. Carroll, of the special committee appointed to arrange for the state association meeting in April, reported progress. He stated that the Summerville doctors would be expected to abandon their patients during the time of meeting, no doubt relying on the presence of so many great minds in all the branches of the healing art to surcharge the very atmosphere with preventive medicine and cause the professional services of the local men to remain uncalled-for.

Insurance Fees Enforced.

More than one Satan, in the form of organizers for the Woodmen of the World, seem to be abroad in the land (of Dorchester and adjoining counties at least) and the secretary was given the pleasant (?) duty of reminding association members of the proper rates for life-insurance examinations, so many being still unaware of the action of the state association.

Clinical Reports.

Dr. J. W. Babcock, who was expected to speak on pellagra, did not come, and the essayist and alternate banking on his appearance failed to come prepared; and reports of cases being in order, Dr. Graham gave some of his experiences with modern gun-shot wounds while serving as a contract surgeon in the island of Samar, Philippine Islands. Dr. Porcher reported cases of resection of dislocated cartilage of the nose, resulting in restoration of the sense of hearing; also the use of tuberculin in the diagnosis and treatment of tuberculosis, holding that failures have been due to the use of tuberculin in too large doses and in the presence of fever.

The essayist and alternate, viz: Drs. E. D. Tupper and J. A. Parker, were reappointed for the next meeting, which will be held in St. George on Monday, Feb. 3rd, 1909.—Edmund W. Simons, M. D., Secretary.

FLORENCE.

The monthly meeting of the Florence County Medical Society was held at the city hall in Florence on December 7th, which was well attended and most enjoyable to the doctors who were present. They were Doctors A. G. Eaddy, W. E. Mills, J. H.

Peele, R. H. Pearce, F. P. Covington, N. W. Hicks, E. M. Allen, D. H. Smith, L. Y. King, J. G. McMaster and F. H. McLeod.

Owing to the fact that the members to whom subjects for discussion had been assigned were absent, the program was not carried out, but there were very helpful and interesting discussions on obstetrics, bronchial fistula and other matters arising in the practice of those present.

Election of Officers.

The following officers were elected for 1909: President, F. H. McLeod, Florence; vice-president, L. Y. King; secretary and treasurer, J. H. Peele, of Cartersville; censors, L. Y. King, D. H. Smith, N. W. Hicks; delegate to the state associations, J. G. McMaster; scientific committee, N. W. Hicks, A. G. Eaddy, and F. P. Covington.

A very pleasant feature of the meeting was the election of the veterans of the profession in the county as honorary members of the association, both that the sentiment of the society towards them might be shown, and that they might feel privileged to attend the meetings and aid their younger brethren by the richness of their experience. The physicians so elected are Doctors James Evans, J. F. Culpepper, P. B. Bacot, and J. F. Pearce.

After the business session the members of the society took dinner at the Commercial Hotel, which was a most delightful part of the day's program.

LEXINGTON.

The Lexington County Medical Society held its first quarterly meeting for the year 1909 on January 4th. There was a fair attendance of members and visitors and the meeting proved to be a very interesting one. Professional subjects were discussed by the various members.

Dr. D. M. Crosson was elected a delegate to the meeting of the state medical association, which convenes in Summerville during the month of April.

Dr. L. B. Etheredge, of Leesville, Dr. J. R. Langford, of Swansea, and Dr. J. W. Eargle were appointed on the legislative committee.

The greatest feature of the meeting, and by far the most important, was the adoption of a resolution requesting the Lexing-

ton delegation in the general assembly to use their best efforts to have the legislature pass a law which will prevent indiscriminate spitting on the floors and walls of railway passenger cars, public halls, and other places where the public is subject to contact with contagious diseases. It is claimed by the physicians that in numberless cases contagious diseases have been contracted from this all too common habit, and that the innocent should be protected.

The next meeting of the association will be held on the first Monday in April.

MARLBORO.

The regular monthly meeting of the Marlboro County Medical Society met in Bennettsville, S. C., on December 4th, with the following members present: Drs. J. H. Reese, J. A. Hamer, C. S. Evans, Douglas Hamer, A. S. Townsend, J. C. Moore, T. E. Bull, T. W. Carmichael, J. F. Kinney, W. M. Reedy, T. E. Wannamaker, Jr., Chas. R. May. The meeting was called to order by Dr. J. H. Reese, president. Dr. A. S. Townsend gave a talk on the uses of ergot and forceps in labor, which was discussed by other members present. Other papers were held over until the next meeting. Drs. Bull and Wannamaker of Cheraw extended an invitation to meet and afterwards dine with the Chesterfield Medical Society on December 17th, at Cheraw.

Election of Officers.

The annual election of officers for the year 1909 resulted as follows: President, Dr. W. M. Reedy, Clio, S. C.; vice-president, Dr. J. L. Napier, Blenheim, S. C.; delegate to South Carolina Medical Association, Dr. J. C. Moore, McColl, S. C.; censor, Dr. J. H. Reese, Tatum, S. C.; secretary and treasurer, Dr. Chas. R. May, Bennettsville, S. C.—Chas. R. May, M. D., Secretary.

ORANGEBURG—CALHOUN.

The last meeting of the year of the Orangeburg-Calhoun Counties' Medical Association was held in Orangeburg, Dec. 15th, the city hall being the place of meeting. Nearly every physician in the county was present and considerable interest was manifested in the association's affairs, which were reviewed for the past year. Approx-

priate resolutions on the death of Dr. A. S. Hydrick were passed.

Election of Officers.

The following officers were elected to serve for a year: President, Dr. W. L. Pou, of St. Matthew's; vice-president, Dr. M. J. D. Dantzler, of Ellorree; secretary, Dr. D. D. Salley; treasurer, Dr. W. R. Lowman; censor for three years, Dr. M. G. Salley.

RICHLAND.

There was a large and enthusiastic meeting of the society Monday night, December 14th. Twenty-seven members were present. Several interesting cases were reported. Dr. Lewie A. Griffith read the report of the local board of health to the City Council. The report was fully discussed and the society heartily endorsed the work and recommendations of the board.

Dr. William M. Lester read a very interesting and instructive paper on the prophylaxis of typhoid fever. The society requested Dr. Lester to send his paper to the Journal for publication. The following is the secretary's report for the past year:

To the President and Members

of the Medical Society of Columbia, S. C.

I am sure the following information concerning the work of the Society for the past year (1908) will be of interest to you.

During the year twelve (12) regular and one (1) called, meetings were held. The average attendance was twenty, the same as last year.

Thirty-one (31) cases were reported and eight (8) papers were read, as against thirty-nine (39) cases and ten (10) papers in 1907.

We now have on the roll fifty-one (51) members. Of this number the following four (4) were elected this year: Drs. G. C. Stuart, of Eastover, C. L. Kibler, W. E. Fulmer, and F. M. Durham of Columbia.

One member, Dr. J. H. Burkhalter, resigned.

At the November meeting, Dr. S. C. Baker of Sumter, President of the South Carolina Medical Association, and Dr. F. M. Dwight of Wedgefield, Councillor for the Seventh District, were present and made interesting talks to the Society.—Mary R. Baker, M. D., Secretary.

Election of Officers.

This being the annual meeting, the following officers were elected: President, Dr. Lewie A. Griffith; vice-president, Dr. F. Asbury Coward; secretary-treasurer, Dr. Mary R. Baker; delegates, Dr. William Weston and Dr. William A. Boyd; censor of

three years, Dr. Samuel E. Harmon.—Mary R. Baker, M. D., Secretary.

SPARTANBURG.

Election of Officers.

At the annual meeting of the Spartanburg County Medical Society held December 18th, 1908, the following officers were elected for the ensuing year.

President, Dr. S. T. D. Lancaster; vice-president, Dr. A. R. Fike; secretary, Dr. L. R. H. Gant; treasurer, Dr. W. H. Chapman; delegate for three years, Dr. J. H. Allen; censor for three years, Dr. A. D. Cudd; messenger to the Fourth District Meeting, Dr. J. L. Jefferies.

UNION.

Election of Officers.

The Union County Medical Society held its regular weekly meeting January 4th, 1909. After transaction of routine business, report and discussion of cases, thoroughly and enjoyably ended, the annual election of officers took place. For president, Dr. J. T. Jeter, Santuc; first vice-president, Dr. D. H. Montgomery, Union; second vice-president, Dr. M. W. Chambers, Jonesville; secretary and treasurer, Dr. R. R. Berry, Union; delegate to South Carolina Medical Association, Dr. Crown Torrence, Union, with Dr. M. W. Culp, of Union as delegate.

Our county society, while small, is in a most flourishing condition, and has some most enthusiastic meetings. In summing up and reviewing the year's work the members all feel that they have been greatly benefitted —really don't think we could get along without our weekly meetings. And that is not all; we are all, every one, determined to make the year 1909 the best year since its organization..

Dr. R. G. Hamilton and Dr. R. R. Berry have exchanged fields; Dr. Hamilton goes to Buffalo while Dr. Berry comes to Union. Dr. Berry is at present in Philadelphia doing post-graduate work.

Shall try to let you hear from us once a month.—R. R. Berry, M. D., Secretary.

X-Rays by Express.—A Berlin specialist received a letter to the effect that the writer had had a bullet in his thorax for eleven years. "I am too busy to come to

Berlin, but hope you will come down here with your rays, as my case should be worth your while. If you cannot come, send a packet of rays with instructions as to use, etc., and I will see if I cannot manage to work them myself." The doctor replied: "I am sorry that my engagements prevent my coming to see you, and that I am out of rays just now. But if you cannot come to Berlin yourself, send me your thorax by express, and I will do the best I can with it."—Medical Times.

Personal

Dr. R. G. Hamilton, of Union, has removed to Buffalo, S. C., where he will practice hereafter.

Dr. J. L. Orr, of Greenville, spent the Christmas holidays with relatives in Columbia.

Dr. W. R. Barron, of Charleston, spent some time last month with relatives in Manning.

Dr. R. R. Berry, formerly of Buffalo, Union County, has removed to Union to practice. He is now in Philadelphia doing post graduate work.

Dr. Davis Furman, of Greenville, spent several days in Colleton County, during Christmas week, bagging birds. There are only a few left.

Dr. J. M. Lanham, of near Woodruff, one of the best known physicians and sterling citizens of Spartanburg county, was stricken with paralysis on Dec. 27th, last.

Dr. R. S. Cathcart, of Charleston, was elected 2nd vice-president of the Southern Surgical Gynecological Association at the St. Louis meeting, in December last.

Dr. Stuart McGuire, of Richmond, who is well known and liked in this state, has recently been elected president of the Southern Surgical and Gynecological Society.

Dr. J. T. Taylor, of Adams Run, Councillor of the First District, killed three deer in twenty minutes last month. His friends say "that is going some", and are proud of him.

Dr. Mary R. Baker, of Columbia, is spending several months in New York doing post graduate work in pathology and bac-

teriology. Upon her return home she will limit her work to these branches exclusively.

Dr. Mazyck Ravenel, formerly of Charleston, and now professor of bacteriology at the University of Wisconsin, will be the guest of the S. C. Medical Association, at the annual meeting in Summerville, April 21, next.

Dr. John Lunney, of Darlington, entered upon his sixth matrimonial venture when he married Miss Maggie Campion, at the residence of Mr. J. G. Hutchinson, Jan. 6th, the Rev. M. L. Banks officiating. Dr. Lunney has been well known for a number of years as a leading physician and surgeon and a prominent citizen of his town and county. Miss Campion, now Mrs. Lunney, is the sister of the late B. F. Campion, and is well known and greatly esteemed by her many friends in Darlington.—News and Courier.

News and Miscellany

STATE BOARD OF HEALTH REPORTS TO GOVERNOR.

The Executive Committee of the state board of health has rendered its annual report to the Governor, with the following letter from Dr. Robt. Wilson, Jr., M. D., of Charleston, chairman:

"I have the honor to submit for your consideration the 29th annual report of the executive committee of the state board of health and request that you transmit it to the general assembly.

"At the last session of the general assembly an act was passed requiring the state board of health, through the chairman, to transfer to the United States treasury department, without compensation, the quarantine station and properties of the State. The terms of the act have been carried out, and the government of the United States is now in control of the maritime quarantine.

"The most important health legislation enacted in recent years was the provision made by the general assembly at the last session for the appointment of a state health officer. The appointment was given to Dr. C. F. Williams of Columbia, who has entered upon the work with a just conception of the obligations of his office, and in performing the duties imposed upon him has shown himself earnest and thorough,

with a zealous interest in the betterment of the health conditions of the state. His report should receive the thoughtful consideration of every member of the general assembly.

"I would call your attention particularly to the conditions which have been found to exist in the cotton mills and villages, and urge the importance of legislation which will give the state board of health authority to deal with them and to provide for the medical inspection of the operatives. In order to secure sanitary construction it is further necessary that the board be authorized to engage the services of a consulting engineer, to whom shall be submitted for approval all plans of mill buildings, public buildings, schools, etc.

"A further pressing need is a laboratory for bacteriological work. In determining the nature of certain infectious diseases and in tracing the sources of infection, which are essential for the intelligent application of preventive measures, bacteriological examinations are absolutely necessary, and we are confident that it would result in saving of money for the state to equip a laboratory to be open to the physicians of the state. In this laboratory provisions could be made for the Pasteur treatment of rabies. The cost would not be great and the returns would more than justify the outlay.

"One of the most dreaded of the infectious diseases is diphtheria. Since the introduction of the antitoxin treatment, however, the mortality has been so greatly reduced that it has lost to a considerable extent its former terrifying aspect. Owing to the hardship often entailed by the purchase of antitoxin and the necessity of its use as a preventative and life-saving agent, we earnestly suggest that the state board of health be empowered to furnish antitoxin free of cost and that for this purpose \$5,000 be appropriated.

Hygiene Teaching.

"Last year attention was called to the importance of instructing teachers and school children in the fundamental principles of hygiene and sanitary science; and in order to provide for the printing and distribution of leaflets containing brief accounts of such infectious diseases as tuberculosis, typhoid fever, diphtheria, scarlet fever, etc., we requested that the small sum of \$250 be appropriated. This request we earnestly repeat. Ignorance is the wind which fans into flame the unrecognized spark of disease, and it is only by the spread of knowledge that we can hope to stay its ravages.

"Not the least important undertaking which the board had in hand was to put into operation the pure food and drug law of 1907, the scope of which work will be seen by reference to the reports of Drs. Parker, Mood and Coward.

"With only \$1,000 at our disposal we could accomplish comparatively little, but these reports demonstrate the value of the work. For instance, during the four months in which inspection was made of fish, beef, pork and oysters shipped from Charleston to the interior, 532 gallons of oysters and 510,050 pounds of beef, pork and fish were inspected and stamped, of which 4,000 pounds of fish and 300 pounds of livers were condemned as unfit for use. If this law is to be made effective, and the people of the state protected against the use of impure and adulterated foodstuffs and drugs, it is absolutely necessary that greater liberality be shown by the general assembly.

The State Hospital.

"Your attention is further called to that portion of the report of the committee on state penal and charitable institutions which refers to the conditions prevailing in the State Hospital for the Insane in Columbia. With 1,500 patients occupying accommodations intended for only 1,000, the evils of overcrowding are unavoidable.

"Under such conditions it is, of course, impossible to provide for the separation of the tuberculosis patients which is urgently demanded both on account of the contagiousness of the disease and because the infected can not now receive proper treatment, of which free ventilation and out-of-door life are the first requisites. This unfortunate condition demands relief, and we most earnestly urge upon the general assembly the necessity of granting the board of regents their request for the means to establish a farm colony for the care of inebriates, epileptics, the mildly insane and the tubercular insane."

AN OBJECT LESSON IN PUBLIC POLICY AND POLITICAL ACTION.

An object lesson of deep significance to legislators, to the medical profession, and to the public in general has just received its finishing touches by the selection of Hon. Theodore E. Burton to succeed Hon. J. B. Foraker as United States senator from Ohio.

The lesson began a number of years ago in the fight to secure a national food and drug law. This measure, designed to secure good food for the well and safe medicines for the sick, was fostered by the American Medical Association. The entire force of its legislative organization, with actual membership in every county and actual influence in every school district in the United States, naturally espoused the cause of the people. On the other side were ranged highly capitalized interests,

representing the adulterators of foods, the manufacturers of dangerous and enslaving drugs and the makers of low-grade whiskies..

The favorite method of the opposition was to assume an air of friendliness for the bill while offering amendments that would utterly destroy its force. When the bill was sent to the Senate in February, 1906, these tactics were adopted by Senator Money for the canning interest, Senator Hemenway for the "patent-medicine" interest, and Senator Foraker for the whiskey interest, and later in the House of Representatives J. H. Southard, from Ohio, for the proprietary medicine interest.

The attitude of these four men in particular was so disingenuous and in such flagrant disregard of the expressed will of the people as manifested by and through the entire medical profession that it amounted to an offense to every physician in the United States. So flagrant and contemptuous, indeed, was the offense that the moral force of the whole medical profession, especially of the states of Mississippi, Indiana and Ohio, was placed in the balance. In this country such a question can be tried out only in the political arena. In consequence, the attention not only of the medical profession, but of the people of those states, was called to the facts. The slow but sure process of molding public opinion by interviews, by heart-to-heart talks between physicians and their patrons, was at once actively inaugurated, and has been as actively maintained during the two years that have since elapsed.

Senator Money retired on account of ill health before the campaign against him could be made effective. The first congressman to feel the chastening rod was Representative Southard, of the Ninth Ohio District, who, under the active opposition of the physicians of his district, was defeated for re-election in 1908. In Indiana, the widespread opposition of physicians was powerless in the presence of machine methods to prevent the nomination of a Republican legislature favorable to Senator Hemenway's return. So Senator Hemenway's legislature itself was not elected, the opposition of the physicians contributing no little to the result.

In Ohio the nearly nine thousand physicians of the state, acting as a unit, in

their house-to-house visits during two years, had so far molded public opinion against Senator Foraker that his connection with the Standard Oil Company, shown by Mr. Hearst, was unnecessary to crystalize an antagonistic sentiment. But when the senatorial campaign came on Dr. Charles A. L. Reid, chairman of the Committee on Medical Legislation of the American Medical Association, for the purpose of making the lesson more specific and more sure, himself entered the lists as a candidate for the office. He made a thorough canvass of his state and presented to the people their own cause as represented in still further perfected food and drug legislation, in the establishment of a national department of public health and in the enactment of other social and economic reforms. The proprietary medicine interest threatened to withdraw their advertising from newspapers that recognized his candidacy and in that way deprived the movement of much deserved publicity. Nevertheless, Dr. Reed's canvass was a success as an educational propaganda.

After the selection in caucus of Mr. Burton, who may be set down as an ardent friend of everything that is for the best interests of the public in the way of national legislation, Dr. Reed gave the press a statement, which commenced with the remark that he and his friends were entirely satisfied with the result, and which concluded as follows: "As for me, all I have to say is that three United States Senators and one Ohio Congressman who tried to ruin the pure food and drug bill have now all been eliminated from public life. It is a glorious clean-up. From this time on let no member of either branch of Congress imagine that he can thus disregard the welfare of the people and rely for immunity on the shortness of the American memory, the fancied remoteness of Washington or the relative inaccessibility of the Congressional Record."—Jour. A. M. A.

PROGRAM 4th DISTRICT MEDICAL ASSOCIATION.

Seneca, S. C., Jan. 25th, 1909.

Opera House 1.30 P. M.

Symposium on Medical Progress and
Post Graduate Instruction.
American Surgeons and Surgery, Dr. S.

C. Baker, Sumter.

European Hospitals, Drs. J. W. Jersey and Davis Furman, Greenville.

Medical Observations in Cuba, Dr. H. R. Black, Spartanburg.

South American Medicine and Surgery, Dr. E. C. Doyle, Seneca.

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Clinical.

Demonstration of Tracheo-Bronchoscope, Dr. J. W. Jersey, Greenville.

Papers.

Hernia, Dr. J. C. Harris, Anderson.

Leaders of Discussion, Drs. Curran B. Earle and W. C. Black, Greenville.

Subject Unannounced, Dr. E. W. Carpenter, Greenville.

Report of a Case of Anglo-Myxo-Sarcoma of Larynx, Dr. L. Rosa Gantt, Spartanburg.

Leader of Discussion, Dr. W. H. Nardin, Anderson.

Diabetes Mellitus with Special Reference to Diagnosis and Treatment, Dr. J. L. Jeffries, Spartanburg.

Report of a Case of Morphia Addiction of Mother Whose Nursing Infant Exhibited Withdrawal Symptoms, Dr. L. G. Corbett, Greenville.

Note the change of hour of meeting from 10 a. m. to 1.30 p. m., which will be after the arrival of all trains, the entire afternoon and evening being devoted to the meeting.

E. A. Hines,
Sec'y. 4th District Med. Assn.

Book Reviews

OSLER'S MODERN MEDICINE, VOL. V.

Modern Medicine. Its Theory and Practice. In Original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume V, Diseases of the Alimentary Tract. Just ready. Price per volume; cloth, \$6.00, net; leather, \$7.00, net; half morocco, \$7.50, net. Lea &

Febiger, Publishers, Philadelphia and New York, 1908.

This great work goes steadily forward to completion, the fifth of the seven volumes now being fresh from the press. It covers the great field of diseases of the digestive system and furnishes a thoroughgoing and authoritative exposition of a group of primary importance. The convenience of having the whole of the great divisions of disease in single volumes has evidently been borne in mind, and the same idea of logical classification and arrangement has been carried out even to the paragraphing, so that any desired item of information can be quickly found. Nothing could be simpler or better than the uniform presentation of each disease in sections dealing with the cause, pathology, symptoms, diagnosis, course and prognosis, and treatment. The paramount importance of the latter is recognized in the fulness with which it is considered.

Modern Medicine differs from anything undertaken in the past in at least one very important particular, namely its cosmopolitanism. The world is a unit in these days of quick communication, a fact that is vastly beneficial to its inhabitants. The leaders of medicine are scattered through all civilized countries, but engaged in the same quest of knowledge wherewith to combat disease. This knowledge would be confined within very small circles were it not for some means of diffusion, such as Modern Medicine, which carries it to all who read English, a large section of mankind. Professor Osler has distinguished himself both as a physician and an editor. He is interested in every part of medicine, and also knows the men who are doing the best work everywhere. Consequently for each subject, and moreover to quently he has been able to select an au- secure his co-operation. Such is the advantage of prestige and position.

It is scarcely necessary to point out the benefit which every physician can derive from possessing and consulting a work covering the entire domain of practical medicine and reflecting the world's latest and best knowledge.

PROGRESSIVE MEDICINE FOR DEC. 1908.

Progressive Medicine, Vol. IV, December, 1908. A Quarterly Digest of Advances,

twenty-four cases of grave infectious diseases were recently communicated to the Societe de therapeutique in a thesis by Jean Azam, according to an abstract from the Journal de medecine et de chirurgie pratiques in The Practitioner for March, 1908. In enteric fever, particularly, the therapeutic effect has been most evident; eight cases were treated, and they all recovered. Six of the patients were not bathed, and among those must be noted two cases of exceeding gravity. In one, myocarditis gave cause for a gloomy prognosis, and in the other a miscarriage occurred at the outset of her enteric disease, to be followed later by a puerperal infection, associated with her typhoid infection. In both these cases the hypophysial treatment was followed by an almost simultaneous rise in the arterial tension; from 12 to 14 the tension rose by degrees to 20. The pulse, which in several patients was as high as 130 to 140, fell gradually to 90 and 84. The temperature, in both these cases, fell from one to two degrees, but went up again when the hypo-

physial treatment was stopped. Diuresis was well marked in all the patients; in some the quantity of urine was three or four litres. In all the cases convalescence was very quick. In all eight cases the diagnosis of enteric was confirmed by the serum test. In pneumonia the effect was less favorable, but the cases were of extreme gravity. Pituitary gland substance was given in influenzal pulmonary congestion, cerebrospinal meningitis, etc. In all there were four deaths in the twenty-four cases. The daily dose given was 4 1-2 to 6 grains of the powdered hypophysis of bullock. At the end of his thesis Azam gives a resume of the effects of hypophysial inadequacy, and the influence of hypophysial opotherapy. Inadequacy is characterized in toxine infectious diseases by (1) a fall in arterial tension, (2) quickening of the pulse. To these two principal symptoms are added secondary effects, including insomnia, loss of appetite, frequent sweat, and painful heat flushes. Under the influence of hypophysial opotherapy in toxine infections are to be noted: (1) increase of arterial tension, (2) decrease in the rate of the pulse with increase in the force and amplitude of the beats, (3) increased diuresis, (4) increase of weight, (5) suppression of the secondary symptoms of hypophysial inadequacy, (6) a favorable influence on convalescence. It is conceivable that this form of opotherapy will be able to rank beside specific treatment of toxine infections when the quickness of the pulse and the low tension suggest a functional insufficiency, or an actual lesion of the hypophysis.

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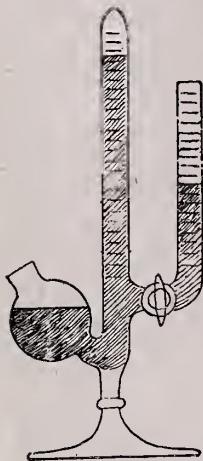
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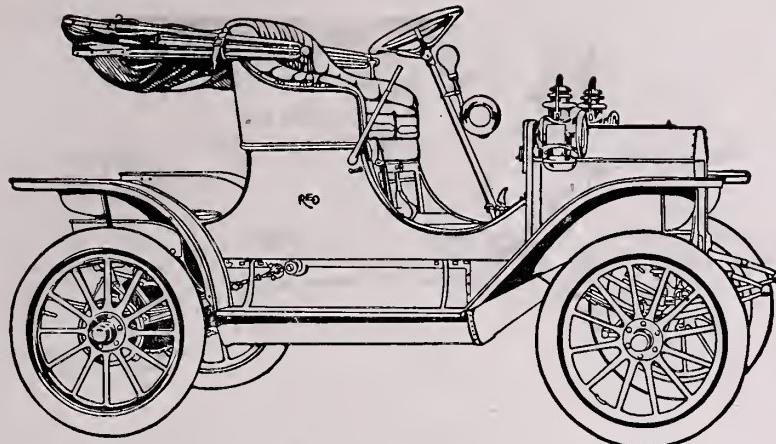
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Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay.

County Society	President.	Secretary	Time of Meeting.
Abbeville ...	J. B. Britt	C. C. Gambrell, Abbeville..	
Anderson ...	J. L. Gray	J. R. Young, Anderson...	Semi-Mo., 1st and 3rd Mon
Aiken ...	C. A. Teague	T. A. Quattlebaum, Gr'tville	Monthly, 1st Monday.
Bamberg ...	A. B. Patterson	J. J. Cleckley, Bamberg...	
Barnwell ...	H. M. Stuart	L. F. Bonner, Blackville..	
Beaufort ...	John L. Dawson	M. B. Cope, Port Royal...	
Charleston ..	J. G. Johnston	A. J. Jersey, Charleston..	Semi-Mo., 1st and 15th.
Cherokee ...	A. S. Todd	B. L. Anken, Gaffney ...	
Chester... .	T. E. Lucas	W. B. Cox, Chester	Monthly, 1st Monday.
Clarendon ...	J. T. Taylor	C. B. Geiger, Manning ...	Quarterly.
Chesterfield..	J. F. Watson	J. W. McCanless, Chesterfield	
Colleton ...	J. B. Johnston	T. G. Kershaw, Walterboro	Monthly.
Darlington ..	R. B. Hanahan	J. C. Lawson, Darlington..	
Dorchester ..	F. P. Barrett	E. W. Simons, Summerville	Monthly, 1st Monday
Edgefield ...	J. L. Folk	I. G. Edwards, Edgefield..	
Fairfield ...	H. H. McLeod	Samuel L n'say, Winnsboro	Quarterly.
Florence ...	Olin Sawver	J. H. Peele, Cartersville ..	
Georgetown ..	L. L. Richardson ..	W. M. Gaillard, Georgetown	Monthly, 1st Friday.
Greenville ...	W. P. Barrett	W. M. Burnett, Greenville.	Monthly, 1st Monday.
Greenwood... .	J. L. Folks	J. B. Hughey, Greenwood.	Monthly, 1st.
Hampton... .	H. H. Burroughs...	C. A. Rush, Hampton ...	
Horry.... .	W. J. Dunn	J. A. Norton, Conway ...	Monthly, 2nd Monday.
Kershaw.... .	F. Blakeley	A. W. Burnett, Camden...	
Laurens ...	B. L. Harris	J. H. Teague, Laurens ...	B'-Monthly, last Monday.
Lee... .	W. L. Kneece	L. H. Jennings, Bishopville	Monthly, 1st Tuesday.
Lexington ...	B. M. Badger	J. J. Wingard, Lexington..	Quarterly.
Marion ...	W. M. Reedy	T. W. Carmichael, Fork..	
Marlboro... .	P. G. Ellisor	Chas. R. May, Bennettsville	
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Oconee ...	W. L. Pou	H. E. Rosser, Westminster.	
Orangeburg...	J. L. Bolt	D. D. Salley, Orangeburg ..	Monthly, 3rd Tuesday.
Pickens ...	J. A. Griffith	D. B. Gilliland, Easley ..	Monthly, 2nd Wednesday.
Richland.... .	D. B. Frontis	Mary R. Baker, Columbia.	Every 2nd Monday night.
Saluda.... .	S. T. D. Lancaster	J. D. Waters, Coleman...	
Spartanburg...	Archie China	L. R. H. Gant, Spartanburg	Monthly, last Friday.
Sumter.... .	J. T. Jeter	E. R. Wilson, Sumter ...	Monthly, 1st Thursday.
Union.... .	W. S. Lynch	R. R. Berry, Union ..	Weekly
Williamsburg..	J. H. Save	J. B. DuRant, Lake City..	Monthly.
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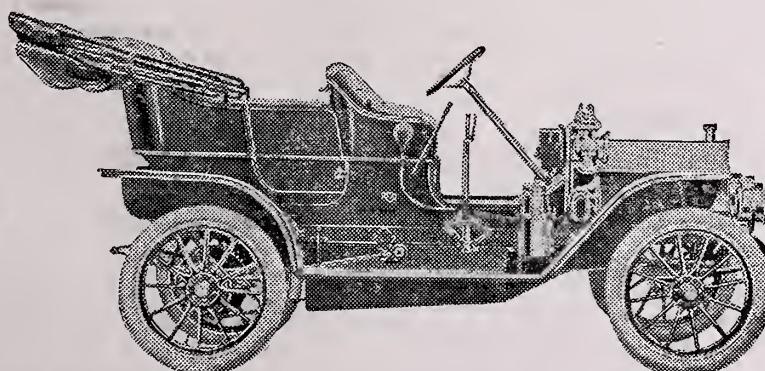
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The Journal

OF THE

South Carolina



Medical Association

Volume V.

Greenville, S. C., February, 1909

Number 2

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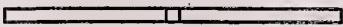
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J. W. JERVEY, M. D., EDITOR

No. 2

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Editorial

THE COMING ANNUAL MEETING.

The State Association will meet in Summerville, April 20-22, now some two months off. The outlook for a pleasant and instructive meeting is very bright. The hotel accommodations promise to be better than we have had at our disposal for a number of years. Already a great many members have manifested their intention to read papers covering a wide range of subjects, and the list will grow as the meeting draws nearer.

"It is probable", says President S. C. Baker, "that the subject of tuberculosis will be stressed at this meeting, both in its medical and surgical features."

Dr. Mazyck P. Ravenel, of the University of Wisconsin, a former South Carolinian and former secretary of our association, who has forged to the front in laboratory research, will speak to us on the bacteriology of the disease, and Dr. Bransford Lewis, of Saint Louis, will address us on tuberculosis of the genito-urinary system, its manner of invasion and mode of treatment.

In addition to this we are all looking with interest to the time when the Panama canal will have been completed, but, as President Baker points out, its opening up for interoceanic travel threatens to bring to our doors two new classes of diseases. The shipping from the Philippines, Japan and the far East, after it has threaded the canal, will, much of it, make direct for Charleston, the first large port upon our Atlantic coast, and thereby threaten us with Asiatic cholera and bubonic plague in a first-hand manner we have never before experienced; and the necessary tarrying in the canal zone for a week or thereabouts while waiting for passage, will render vessels liable to infection with the tropical diseases there indigenous. Hoping to forestall these dangers Dr. Baker has taken up the matter with the U. S. government authorities, and there is every reason to believe that we will have a representative from one of the medical departments, who will speak to us of the tropical diseases there encountered. Dr. Baker has also enlisted

the aid of the marine hospital and public health department, and an officer of that service will probably be detailed to attend the meeting and speak to us of quarantine and preventive medicine, as especially applicable to these new enemies. Every member of the association should put forth his best efforts to go to Summerville and avail himself of the opportunities there to be had.

DOCTORS AND POLITICS—A BLOT ON THE RECORD.

In the fall of 1906 the Honorable T. P. Cothran, a member of the legislature from Greenville County, assisted by the writer, spent a deal of time and trouble in the careful preparation of a bill amending the existing Medical Practice Act, so as to bring about changes long desired by the profession, for the regulation of practice and directly for the protection of the people. Mr. Cothran, as a broad-gauged statesman, easily recognized the wisdom of making these changes, and his patriotic interest stimulated him to give freely of his best services. When the legislature convened in 1907 he introduced the perfected bill and worked assiduously for its passage. The House passed it and it went over to the Senate, where, by reason of the congested condition of the calendar, the bill was not reached in time for passage. At the 1908 session of the legislature the identical bill was again taken up in the House, Mr. Cothran being an able advocate and supporter; it was passed and today stands a law upon the statute books of South Carolina, being, perhaps, the best and most nearly ideal medical practice law in existence in any state in the Union.

Now comes a page of history in the medical annals of the profession of South Carolina, bearing a blot that will

forever stain a record which above that of all other professions, save, perhaps, the ministry, should jealously have been held immaculate. Not alone is it the stain of ingratitude or graceless thanklessness, but it marks a pitiful and woful lack of team work and professional esprit, which we fear will be difficult, if not impossible, of justification. Let it be known that in the eyes of all men Mr. Cothran's reputation as a man is that of spotless integrity, and as a jurist he is well recognized as being in the forefront of his profession, enjoying that eminence which is attained only by those favored in the possession of the mental qualifications and judicial poise which permit and prompt them to become men of deep learning and the possessors of the most enviable professional attainments. In the 1909 session of the legislature, Mr. Cothran was placed in nomination to fill an existing vacancy on the supreme bench of the state. Against him in the race was a field of legal minds, constituting a wholly worthy opposition. Mr. Cothran was, and is, at least the peer, personally and professionally, of any of his opponents. The whole medical profession was, and is, under a deep debt of gratitude to Mr. Cothran, as shown above, yet with a single conspicuous exception (Dr. T. R. League, of the Greenville delegation) we are informed that not one physician of the eight or nine who are members of the General Assembly of South Carolina, cast or influenced a single vote in support of Mr. Cothran's aspiration. On the contrary, it is our information that many of them, if not all, deliberately and energetically worked against his candidacy.

Why?

That is the question which, we take it, the profession at large in this state,

whose sincerity has been ruthlessly aspersed, would like to have answered.

No wonder the people criticise and carp; no wonder our motives are questioned; no wonder there is scant sympathy for the doctor who enters the arena of politics

What is the answer?

THE WAR ON TUBERCULOSIS.

There is promise of great practical advantage in the fight against tuberculosis through the agency of the anti-tuberculosis leagues which are being formed in various counties of the state. Charleston, Aiken, Anderson, York, Sumter and a number of other counties now have active organizations composed of physicians and laymen directing a methodical campaign against the spread of the disease. Dr. J. L. Dawson, of Charleston, chairman of the anti-tuberculosis committee of the state association, is to be felicitated on the results of his work so far, and it is hoped that the general interest will be kept actively stimulated to the end that the complete prevention and elimination of the common enemy will, in a reasonable time, become a thing accomplished.

We are not as sanguine as those who declare that within fifteen years this disease will be unknown, but we do believe that it will be largely under control even before that time has elapsed. Education of the masses and the classes, and physical control over the recognized cases—these are the essentials to the eradication of tuberculosis. Money is needed for a campaign of such important proportions, and the people should furnish it, in whatever sums may be required. Fifteen states have already made provision for conducting the work within their borders on a comprehensive scale, and South Carolina is awakening

to a realization of the necessity of taking care of her own. Perhaps in another year a few rays of light from the educational movement will have percolated into the legislative brain, and we may hope then for the pecuniary provision essential to the proper support of the most important campaign ever confronting the people.

PRESIDENT BAKER'S OPEN LETTER.

Dr. S. C. Baker, president of the South Carolina Medical Association has issued the following open letter which should be read by every member:

Fellow Members: The proposed program for the Summerville meeting of the state association, which contemplates a divided session—medical and surgical—requiring the services of two stenographers, instead of one as heretofore, together with the increased number of guests of the association from a distance, will make unusual demands upon our treasury, but not more than our prospective income warrants, provided that each member will pay in his dues promptly in the manner provided by the constitution and by-laws. It is to be hoped therefore that the members will be prompt in this matter, so that the scientific committee may be able to furnish as complete a program as possible and also so as to relieve the stress of work that will necessarily fall upon the treasurer and secretary at the last moment if payment of dues is postponed too long.

Let every county secretary see that dues are remitted to the state treasurer NOW and let every member strive to attend the meeting in April and reap his reward.

Faithfully yours,
S. C. Baker, M. D., President.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

Editorial Notes

The medical profession needs honest, unbiased medical journals. It has learned that to have them it must pay for them, and conduct them for itself. It is a cause for rejoicing in the profession whenever a medical journal is established on a basis that will keep its pages free from the undue influence of the manufacturers of medical preparations.

Numerous as the journals conducted by Medical Societies have become, the possibilities of this kind of medical journalism are still imperfectly appreciated. We are reminded of what may be done in this direction every time we see the Journal of the New Mexico Medical Society. This society, with only two hundred and twenty-one physicians in the Territory to draw upon for its membership, has sustained its neat quarterly journal now for three years, without once staining its pages by the admission of the unethical advertisement, or the tainted reading article. It puts to shame the disgraceful "organs" or "official journals" of some of the older larger State medical societies.—E. J., in Colorado Medicine.

If you habitually pass the crouching dog and never administer a slap or a kick, he will after a while fool himself into thinking you are afraid of him, and sooner or later will give you trouble. Hand him a swat now and then, just to make him sit up and take notice, and his respect for you will be sincerely increased.

It is not too early to begin to lay your plans for attending the annual meeting of the state association at Summerville, April 21 and 22, next. House of Delegates convenes April 20.

Why not specify in the filling of prescriptions the drugs and chemicals used shall be of a certain make known to be thoroughly reliable as to quality? Many pharmacists buy their drugs and chemicals where they can buy the cheapest,

and many manufacturers obtain patronage from the pharmacists through such inducements, but with a correspondingly reduced quality of the goods furnished. Such firms pay little attention to the medical profession because medical men are not directly patrons. But if medical men will insist upon quality of ingredients in filling their prescriptions then the pharmacists of necessity will be obliged to patronize manufacturers who maintain a high standard. It is pertinent for us to ask, Why not insist that the drugs and chemicals manufactured by some of the firms advertising in the Journal be used in compounding your prescriptions? We refuse to carry the advertising of any but trustworthy concerns, and you are safe in recommending the products of any of our advertising patrons. Furthermore, such firms should have your preference when they spend money in advertising in the Journal which you own and the success of which depends in some measure upon the advertising income.—Jour. Ind. State Med. Asso.

Pertinent questions and good advice. Why cannot our members wake up and pull together and follow it?

The meeting in Summerville, April 20-22, next, will be the biggest and best ever held by our state association. There is not a doctor in the state who can afford to absent himself.

The Journal of Tropical Medicine and Hygiene (London) Jan. 1, 1909, p. 12, in an editorial on Progress in Tropical Medicine for the Year 1908, says:

"The discovery of pellagra in the United States has been established, and the Americans, with their usual promptness, have already grappled with the subject, and a certain number of observers were sent to pellagra-infected districts abroad to closely investigate the subject. Recently a Pellagra Conference was held in the United States, at which the various etiological theories were discussed, and Sambon's theory of protozoal causation was favorably entertained as a working hypothesis for

future research. It is regrettable that in Great Britain no concerted action has been taken to elucidate this disease, seeing that in Egypt, the West Indies, and probably many other countries within the Empire, pellagra prevails to a serious extent, though often unrecognized."

So our Pellagra Conference makes a noise around the world. It is well. The State Board of Health, and Dr. J. W. Babcock are to be congratulated upon the fact that their efforts have been so widely recognized.

The trouble with most doctors in politics is that they think more of their politics than they do of their profession. The medical profession should scorn such political representation. It seems to be only too true, after all, that the medical politician is hardly to be preferred even to the ministerial.

Original Articles

THE ACTION OF CERTAIN DIURETICS, WITH SPECIAL REFERENCE TO THEIR UTILITY IN THE TREATMENT OF NEPHRITIS.*

By GEO. E. THOMPSON, M. D.
Inman, S. C.

The problem of nephritis is elimination, and thereby the salvation of the organism from a poisoned circulation. Of the methods of elimination, the selection of a suitable diuretic is of the greatest importance, necessitating on the part of the physician a clear understanding of the results which he wishes the medicament to accomplish, coupled with a thorough intelligence of drug action.

Increased arterial tension is as constantly present in renal insufficiency as is pyrexia in the presence of an infection, and almost as promptly conveys a note of warning to the careful clinician. As pyrexia is an expression of the organism to rid itself of an infection, so is arterial tension an effort of the blood vessels to remove deleterious material.

According to their action, we recognize two classes of diuretics: (1) Those which influence the circulation; (2) those primarily influencing the secretory cells of the kidney. But since an increased secretion from any gland is dependent upon an increased blood supply to that gland, it is probable that all diuretics influence the circulation, directly or indirectly, and locally if not constitutionally.

We have been taught that the nitrites dilate the capillaries and in that manner relieve the tension in the larger vessels, but in the present light of our knowledge of physiology this idea would seem to be erroneous, since vasoconstrictor nerves are distributed only to the muscular coats of the blood vessels, and the capillaries consisting as they do of a single layer of endothelial cells, are incapable of dilatation through the influence of the vasoconstrictor system directly. If such dilatation does occur, it must be mechanical in character, either as the result of increased pressure in the other vessels, or the independent action of the endothelial cells.

In a scholarly article appearing in Journal S. C. M. A., Oct., 1907, Dr. John Forrest discusses diuretics from the standpoint of pressure and resistance. His argument while seeming to hold good from the standpoint of physics, does not seem to take into account the physiological ratio existing between the force and frequency of the cardiac impulse, i. e. a diminution of the force of

*Read before the Spartanburg County Medical Society, Nov. 27, 1908.

the heart beat is compensated for by the acceleration of the frequency, and vice versa. Besides, Bernard's experiments demonstrated that the secretion of urine somewhat alternates between the two kidneys, which proved conclusively that there are other factors than the blood pressure which govern the secretion of urine. Forrest says, "an agent acting on the vasoconstrictor center must influence the whole circulation in the glomeruli as well as the rest." Flint reasoned that, "the vasoconstrictor nerves are capable of influencing local circulations probably through distinct centers for separate parts."

One of the dangers to be apprehended in nephritis is the rupture of vessel walls, and this danger is especially imminent when atheroma is present. Hence, it is rather difficult to find an excuse for the administration of digitalis, which causes constriction of the whole arterial system, thereby aggravating the existing condition. Brunton asserted: "Its contractile power over the arteries may so predominate as to arrest the renal circulation completely and stop the secretion of urine." Since digitalis itself is eliminated through the kidneys, we must naturally conclude that, on account of its poisonous properties, its continued use is liable to result in the retention of a lethal quantity in the system. Some think it a safe drug if the nitrites are taken simultaneously, but we should bear in mind that the latter preparations are often unreliable.

Strychnine enjoys some reputation both as a diuretic and as a respiratory stimulant. The temptation is sometimes a strong one to woo relief for a patient by its administration for the discomfort accompanying a dropsical effusion. But it, too, is a vasoconstrictor, though it is said to relax the arterioles in full doses.

Since it must depend on the kidney for its elimination, the question must arise whether the physician will sometimes be called upon to differentiate between the effects of too much urea or too much strychnine.

One of the difficulties encountered in the treatment of nephritis in the presence of general dropsy is the lack of drug assimilation, but a brisk purgation oftentimes promotes the appropriation of drugs already present in the system. Since certain diuretics possessing poisonous properties accumulate for want a proper assimilation it appears that the totality of their action thus precipitately expressed, is a danger to the patient well worth consideration.

I am inclined to believe that some of our remedies owe their efficiency to their combination with certain elements of the blood to form new chemical combinations, and these new compounds are either inert, or more easily eliminated. Though iodine, as pointed out by Sajous may irritate the intima of the blood-vessels, thus producing vaso-constriction and diuresis, it is by their alterative action that we expect most of the iodides. As the ultimate destination of iron is the red cells, it is probable that its efficiency is due to its effect in improving the quality of the blood. Calomel in small doses increases the number of the red cells, likewise in small doses does it act best as a diuretic.

As regards calomel's mode of action, we know that it stimulates secretion in most of the glands of the body. We would therefore reason that its energy is for the most part spent in the secreting cells. Since an increased blood supply is necessary in the secreting gland, it appears reasonable to attribute most of its diuretic action to local stimulation and irritation of the secreting cells of the kidney, and to assume that what-

ever change takes place in the blood pressure occurs indirectly, and as a local demand for more blood; that such changes are independent of the general vasomotor system.

Conclusions: It is probable all diuretics influence the circulation directly or indirectly.

The administration of the toxic diuretics should be guarded to prevent their cumulative effect.

There seems to be no theoretical indication for the vasoconstrictors in nephritis, save when lowered tension is present. On the other hand, there is danger of too much irritation of the secreting cells as a result of the cell stimulant class.

Certain diuretics owe at least a part of their efficiency to their action in improving the quality of the blood.

REPORT OF A SIX WEEKS' CLINIC.*

By Le GRAND GUERRY, M. D.
Columbia, S. C.

The following cases occurring in my practice in the course of six weeks, I thought would be of sufficient interest to warrant my reporting them. There were in all 107 cases, 73 operated on at the Columbia Hospital and 34 at the Colored Hospital.

Hernia. There were 5 cases of hernia in this series. One case was an enormous incarcerated omental hernia, which had been strangulated for 18 hours. In all cases we did the Bassini-Halstead radical cure without transplanting the cord. The other 4 cases were ordinary oblique hernia.

Gall bladder. There were 4 operations on the gall bladder. The first case was a second operation on the same patient in

which drainage of the gall bladder and removal of stones had failed to cure on account of the unusually large head of the pancreas. At the second operation we did a cholecyst-duodenostomy, which resulted in a splendid cure.

Case No. 3 also deserves special mention. This case was one of gangrene of gall bladder, with two very large stones blocking the cystic duct. The gall bladder was removed entirely down to the stump of the cystic duct. This operation was most difficult on account of size of patient and condition of the gall bladder.

Case No. 2 was an ordinary case of cholecystotomy for gall stones.

Case No. 4 was a colored woman with advanced cancer of the gall bladder. Exploration and death in two days.

Lacerated perineum and cervix. There were four operations for lacerated perineum and cervix. Three cases were complicated by retroversion of the uterus, which complication we always correct by doing a suspension by Gilliam's method, and two of the three by chronic inflammation of the appendix.

Case No. 4 was a simple amputation of the cervix.

Appendicitis. There were 29 operations on the appendix. Twenty-five of these cases were done at the Columbia Hospital. Ten of these cases were chronic, 5 were acute, being operated on within 36 hours of onset, and 10 cases of gangrenous and ruptured appendix with pus. Of the pus cases, 6 were definitely localized, the remaining 4 were confined, if at all, by very slightly limiting adhesions. All operations were done through the intermuscular incision. Whether the case is acute or chronic, clean or pus, we operate through the McBurney incision. When drainage is necessary we drain through stab wound to one side. It is very, very rare indeed

*Read before the Medical Society of Columbia and published by its request.

when we abandon this incision. In some of these cases the infection was unusually virulent and the abscess of very large size.

We practically never leave an appendix behind. We believe it better to enter the free peritoneal cavity by Weir's modification of the McBurney incision, pack off the infected area with Mickulicz pads and remove the pathology by draining through the stab wound, as above mentioned, and close up the original wound. In this way, even in the infected cases, we do away with the likelihood of hernia following drainage, and the patients are kept no longer in bed than in clean cases.

Four cases were at the Colored Hospital. All 4 were appendix abscesses—2 acute and 2 definitely localized. In all the pus cases, whether localized or not, the appendix was gangrenous and ruptured.

Operations on female breast. There were 4 cases of cancer of the breast, on all of which, of course, we did Halsted's complete breast operation.

There was one case of galactocele, and one case of diffuse hypertrophy. In both of these cases the gland alone was removed—in the last instance the nipple was saved. We would remark in connection with the breast cases what a lamentable fact it is that so many of them seek relief when the favorable time has passed. Worse than cancer of the breast is cancer of the cervix.

Epithelioma. There were 2 cases of epithelioma—1 on the left lower eyelid and one on the neck. Both removed under local anesthesia.

Goitre. This was a case of Basedow's disease, in which a very large left lobe reached below the sternal margin. This lobe was definitely a colloid degeneration. The rest of the growth was a true exophthalmic goitre.

Prolapse of rectum. We made an incision between the tip of the coccyx and margin of the sphincter, and narrowed by suture the posterior rectal wall. The result was most satisfactory.

Tuberculosis of kidney. The patient was critically ill with an acute tuberculosis of kidney, coming on 4 weeks after confinement. The result so far has been very satisfactory, since removal of kidney. Carbolic acid, gts. x, was placed in the ureter and was not removed.

Suspension of kidney. One for renal crises, and one for traumatic dislocation of kidney in a male.

Suprapubic cystotomy. One case for drainage of infected bladder, and the other for removal of stone.

Laminectomy. One operation for fracture and dislocation of fifth cervical vertebra. This patient died on the third day after operation.

Fallopian Tube. On fallopian tubes there were 4 operations—2 for tubal abortion, which formed an old haematocoele, and in 2 cases both infected tube and ovary were removed.

Hysterectomy. This was an extremely interesting series of cases. There were 16 supra-vaginal hysterectomies for all sorts and conditions of uterine fibroid tumors. It is extremely interesting to note that of the 16 cases, 15 were colored and 1 was white. Perhaps 5 of the operations were simple, the rest were very difficult. Details would simply prolong the paper to an undue length. Suffice it to say that nearly all of the difficulties of this major operation were encountered, the most frequent being pyosalpinx.

There were 9 cases of carcinoma colli uteri, on which we did a pan-hysterectomy according to Wertheim's method. In the future we shall not make so extensive an operation as this, con-

tenting ourselves with removing as large a portion of the parametrium as is convenient.

If the glands above the bifurcation of the iliac vessels are already infiltrated with cancer, operation is practically without hope. Wertheim's latest figures have fallen from 60 per cent to 18 per cent. of permanent cures.

Spleen. There was one splenectomy for a 4 pound spleen, which contained a large abscess, involving nearly the upper third of the organ, and being densely adherent to the posterior surface of the stomach and transverse colon. The patient was profoundly anaemic and died from slow hemorrhage.

Gastric ulcer. There was 1 case of gastric ulcer which had perforated behind the duodenum and formed an old cicatricial mass of adhesions.

Perinephritic abscess. There was 1 case of perinephritic abscess, operation for which was done under cocaine.

Minor Cases. In addition to the above we will simply enumerate the following minor cases: 1 of leg ulcer, 3 of skin graft, 1 of varicocele, 1 of infected elbow, 1 of infected leg, 1 abscess of buttock, 2 dilatation and curettage, 1 fistula in ano, 2 suppurating inguinal glands, 1 inveterate cystis, 1 necrosis of radius, 1 tuberculosis of astragalus, 1 tubercular arthritis of wrist joint, 1 infected compound fracture with plating of bone.

When this paper was written there were 3 deaths—from slow hemorrhage following the splenectomy, 1 following a 5 minute exploratory operation for cancer of the gall bladder, which should have been refused, and 1 following a laminectomy.

Since writing this paper, the case of gangrene of gall bladder died apparently from a continued pneumonia, in the fourth week of her illness.

DISEASES OF GALL-BLADDER AND OPERATIONS FOR GALL-STONE.*

By W. C. BLACK, M. D.,
Greenville, S. C.

In order to discuss this subject intelligently it will be necessary to notice the anatomy of the gall-bladder very briefly. The gall-bladder is a receptacle for bile which is secreted by the liver, and lies obliquely along the lower border of the liver, measuring in length from three to four inches, and holding approximately one and one-half ounces. Its fundus is directed downwards and slightly forward, pointing to the right, and touching the interior abdominal wall. The neck of the gall-bladder is directed upwards, backwards and to the left, and empties in the duodenum. The fundus is covered with peritoneal membrane. Above this there is a bare uncovered surface, which lies in contact with the liver in the fossa for the gall-bladder. The extent of the peritoneal investment varies very greatly in different individuals. The posterior relations of the gall-bladder are from below upwards, the transverse colon, the duodenum, and possibly the pyloric end of the stomach. As the gall-bladder narrows to the cystic duct, its walls become thicker and almost an acute curve is formed. Bevan has pointed out: "That this curve can be entirely straightened out by dividing the peritoneum and connective tissue around the neck of the gall-bladder and cystic duct."

When the gall-bladder is opened at the beginning of the cystic duct, there is a valvular projection of the mucous membrane which can be clearly seen. There is a series of similar valvular projections around along the whole length

*Read at the Annual Meeting of the S. C. Medical Association, at Anderson.

of the cystic duct. These valves are composed of mucous membrane. The cystic duct is about one and one-half inches in length, and runs downwards and to the left between the layers of the lesser omentum to join the common hepatic duct, in forming the common bile duct. The common bile duct is approximately three inches in length, and extends from the points of its formation at the junction of the cystic and hepatic ducts, downwards and slightly to the right, to the end with the canal of Wirsung in the ampula or diverticulum of Vater. The relations of the common duct, from a surgical standpoint, are by far the greatest importance of the bile ducts. It extends from the formation of the common duct, by the junction of the cystic and hepatic ducts to the posterior of the duodenum, which comes in contact with the pancreas. Bunger has made dissection in fifty-eight subjects. In fifty-five he found that the common bile duct ran through the substance of the pancreas.

Varieties of gall-stones. There are a number of varieties of gall-stones, all of which vary in size, shape and color. I shall not here mention the different varieties, but suffice it to say that gall-stones may be single or multiple. A solitary stone may be found in the gall-bladder or the cystic duct, or in any part of the hepatic or common ducts. A single calculus, however, when discovered during operation, is nearly always impacted at some part of the bile passages. As a rule calculi are multiple, and sometimes the number is astonishing. Moynihan reports a patient, from whom he removed eighteen hundred and eighty-five. The patient was a man, who suffered from duodenal ulcer, for which he had performed a gastro-enterostomy. He explored the gall-bladder and found

it packed with small stones, the average size of which was that of a mustard seed. In this case there had been no symptoms of gall-stone colic.

The formation of gall-stones. To some extent the formation of gall-stones is still a mooted question. Morgagni, Meckel and von Hensbach attribute a causative influence to a chronic catarrh of the mucous lining, the gall-bladder and bile ducts. Recent observers, Naunyn, Gilbert and others, have thrown much light upon many of the circumstances necessary to the formation of gall-stones. The two chief constituents, however, of gall-stones are cholesterin and bilirubin-calcium. The origin of these two substances, I may say, seems to be definitely settled.

In 1845 Budd suggested that the cholesterin of gall-stones was derived from the mucosa of the gall-bladder. Forty years later, or in 1887, this theory was supported by Bristowe and Naunyn. Recently, after much work and investigation, this theory seems to be clearly demonstrated. To produce these constituents, however, an inflammatory process, with desquamation of the epithelium is necessary, and "in all probability this change is accompanied by an increased out-pouring of mucus from the gland." In the majority of cases gall-stones are formed in the gall-bladder proper. However, when they are found in the ducts, they are usually formed in the gall-bladder, and have migrated there. Gall-stones may, however, without question, form in the ducts primarily. I will say here, however, that a certain amount of cholecystitis must exist before the formation of gall-stones; this soil is absolutely necessary. It has been claimed, however, that the injection of bichloride of mercury or carbolic acid injected into the gall-bladder increased

the cholesterin in the bile. The walls of the gall-bladder, especially, in the bichloride series were thickened and showed some proliferation and desquamation of epithelium, with an inflammation or congestion of the sub-mucosa.

As science and research progresses, much attention has been given to bacteria in the production of gall-stone. Galiappe, in 1886, suggested microbial origin of biliary calculi. The bacillus coli, and the staphylococcus pyogenes were found in gall-stones by Welch, in 1890. Later, the bacillus typhosus was found. Hartman "examined the bile in forty-six cases of cholelithiasis treated by operation. In thirty-six bacteria were found; in ten the fluid was sterile; in twenty-three bacillus coli alone was found; in three staphylococcus pyogenes albus and aureus; in two streptococci; in one the staphylococcus pyogenes albus; in two the bacillus coli with staphylococcus; in three streptococci with other organisms." I may say, however, that it has been clearly demonstrated that any cause which gives rise to a cholecystitis, either direct or remote, tends to produce cholesterin and bilirubin-calcium—hence gall-stones.

The organisms necessary to the formation of gall-stones may reach the gall-bladder and bile passages in two ways: (1) along the common duct from the duodenum, (2) by the blood current, chiefly through the portal circulation. It may be stated, however, that the common duct route is the most common, owing to the fact that the bacillus coli is the most common bacterial inhabitant of the gall-bladder, as this pyogenic organism is the most common found in the intestinal tract. It is claimed by a number of investigators that the portal route of bacterial infection is the most common, but the weight of evidence favors the former. Bacteria have been

injected in the portal circulation, and found in the bile. The association of gall-stones is a very common occurrence with appendicitis.

Ochsner claims he has found that thirty-five per cent. of his gall-stone cases had suffered with appendicitis. The disturbing lesions in the appendix doubtless allow an infection of the blood in the portal system. Gall-stones may increase in size in any part of the biliary tract. They may be found in the gall-bladder, in the hepatic, cystic or common ducts, and usually get larger.

Pathology of gall-stone disease. In all cases of gall-stone disease, at one stage or another, there will be an inflammatory process. At first there may be very slight evidences of catarrh of the mucosa. Janowski claims that a hypertrophy of the muscle is recognizable at this stage. "The condition of the wall of the gall-bladder has been compared with that of the urinary bladder. Upstanding pains of hypertrophied muscle then there is a condition of sacculation." In operations of cholecystectomy the wall of the gall-bladder to the eye may appear to be very little changed, if any, and yet the microscope will show a hypertrophy of the muscular layer. This condition, however, could only exist for a short while, as lesions of degeneration would soon form. After the formation of gall-stones in the gall-bladder, it is only a short while until pathological changes can be recognized in all the coats of the organ. The mucous membrane becomes thickened, mottled, in numbers it has shed its epithelium and ulcers begin, the muscular layer gives way and is replaced by bundles of thick fibrous tissue, varying in thickness. The lesions in the mucosa are rapidly progressive. Cicatricial tissue forms and contracts with the sclerosis of the gall-bladder as a final re-

sult. Among the various other pathological changes, too numerous to mention, will be found, pericholecystitis. When the outer surface of peritoneal membrane is inflamed, adhesions will follow, which makes the condition still more grave. Practically the same changes take place in the ducts and hemorrhage from the gall-bladder are common and serious complications.

Symptoms of gall-stones. Many more people are affected with gall-stones than is commonly supposed. Percentage given by various authors: Riedel, ten per cent.; Kehr, ten per cent.; Brewer, twelve per cent.; Recklinghausen, twelve and two-tenths per cent.; Mosher, six and ninety-four hundredths per cent.; Herter, seven and six-tenths per cent. Naunyn writes: "On an average of every tenth human being, and of elderly women perhaps over one-fourth." In a large majority of people who have gall-stones, the disease is never recognized. Many people carry gall-stones for many years without the slightest inconvenience, and many people pass even large stones from the gall-bladder without the usual warning symptoms of gall-stone colic, or biliary colic, or pain, or temperature, or jaundice. The presence of gall-stones may give rise to almost all kinds of symptoms, in the mind of the patient, such as indigestion, epigastric pains, nausea, vomiting, neuralgia of the stomach, spasm and flatulency are a few of the symptoms most frequently encountered. He must have the unmistakable evidences of jaundice to associate the suffering of gall-stones in his mind. In the majority of cases of gall-stones, there is no jaundice. The symptoms which we desire to discuss are pain, colic, nausea and vomiting, jaundice, fever and tumor.

Pain. Localized pain is of two types. A dull aching pain, due to increased

tension and inflammation, limited to the region of the gall-bladder, and an acute, almost intolerable pain, which results from more intense infection, and a more wide spread inflammation. The dull localized pain is due to irritation and inflammation, with intense increasing tension in the gall-bladder, cystic duct, and due to the impaction of a stone in the attempt to pass it out of the gall-bladder. The pain is diffused over a large area along the margin of the liver. Tenderness may be, or may not be, marked. A very marked characteristic diagnostic sign of gallstones is the inability of the patient to draw a full breath, especially if the physician's finger is being pressed along the liver border.

Usually upon deep pressure the pain radiates over the entire hepatic region and epigastrium. During the attack of gall-stone colic the pain may be confounded with that of stomach disease. It is, however, rather in a diffused aching, which becomes aggravated after food. This condition is usually relieved temporarily by vomiting, as it is due to the impaction of a stone in the duct producing tension within the gall-bladder. When the stone drops back after emesis into the gall-bladder, the pain is relieved. These pains and this tenderness are produced by the inflammatory processes going on in the gall-bladder and ducts, rather than the real existence of the stone. This pain frequently radiates to the right of the subscapular region to the neck, down the arm and epigastric region.

Colic. The exact cause of the colic in gall-stones has been much debated, and there seems to be no general agreement upon this question. Some authors take the view that the colic is due to an inflammatory process, to irritation in the gall-bladder or the ducts.

They claim that the inflammatory process lessens the caliber of the ducts and impedes the passage of the contents, causing an increased pressure behind the obstruction, and gives rise to colic. While other surgeons claim that the colic is always due to spasm of the duct; that it is due to an attempt of the duct by contraction of its muscles to expel an impacted body. The colic I think, however, is due to the fact of the muscular walls trying to expel the contents of the gall-bladder.

Nausea and vomiting. Nausea and vomiting are common manifestations of typical cases of cholelithiasis. (It is indeed responsible for the unjust and heavy burden which is laid upon the stomach). In many cases of so called indigestion, the underlying cause is nothing more nor less than gall-stones (nausea and vomiting are partly reflex in origin and are partly due to the direct irritation of the stomach). In all cases of indigestion, tenderness over the region of the stomach, with a deadly sickening feeling and vomiting, the gall-bladder should be thoroughly examined, as many of these so-called cases of indigestion are due to an impacted stone in the cystic duct. In these cases it is the obstruction which reflexes the pain—hence the nausea and vomiting.

In many cases of gall-stone obstruction where this stone is lodged in the mouth of the gall-bladder proper, or even lower down, you will find the gall-bladder very much distended. The writer has seen during the past six months, three cases of this kind, in one of which the gall-bladder was as large as the size of a three-quart bucket. In each one of these cases a positive diagnosis of gall-stones was made, but in neither case was his opinion acquiesced in. One case died within a few days, and the other two are still living, and many stones

have since passed, notwithstanding the fact that the physician, with whom I had been called in consultation, made the diagnosis of malignant disease of the gall-bladder and said nothing could be done.

Jaundice. Jaundice is sometimes present in this disease. I will state in this connection, however, that if jaundice appeared more frequently more lives would be saved, as there seems to be a common acceptance of the fact among many physicians that unless you have jaundice there are no gall-stones present. Murphy says that only fourteen per cent. of his gall-stone cases had jaundice. I may lay it down, however, as a general proposition, that in gall-stones where you have jaundice, this condition is usually preceded by colic, though not always.

The writer had one case of gall-stones in a woman, thirty-five years of age, a diagnosis of which was not made until he operated on the patient for floating kidney, when the stone was felt impacted in the cystic duct.

When the operation was done for the removal of the stone, five weeks after the operation for the fixation of the kidney, the most difficult part of the entire procedure was liberating the stone from the cystic duct, after the walls of the gall-bladder and duct had been almost inverted. This woman had had a large tumor, as large as an ordinary grape fruit, below the border of the liver, which had been there for three years to my own knowledge. She, however, had no pain, no jaundice, no bilious colic, in fact it gave her no inconvenience whatever.

Fever. In cholecystitis where you have gall-stones with bacterial infection, the temperature rises rapidly and returns to normal the same way. In grave cases, where the infection is limited to the

gall-bladder, the temperature may rise to one hundred and four. In some of these severe cases of cholecystitis, either acute or phlegmonous, you have a marked rigor.

Treatment. I desire, however, to say that the life and health of many people who suffer with this disease depend upon the diagnosis of the general practitioner, because it is through him that the great majority of these cases must come to the surgeon; but when he has made his diagnosis his mission is done. He may give his sweet oil, his castor oil, his sodium phosphate, his succinate of soda, and calomel, and all other drugs which he may have at his command, and yet he cannot dissolve any gall-stone, no matter what variety it may be, which forms in the gall-bladder. Experience has taught us that there is only one remedy for this disease, and that the knife.

I wish to say, however, that the operation should never be performed during the acute or febrile attack. Every case of gall-stone should be operated on. As above shown, this is the only remedy taught us by experience. The operation done properly, and at the proper time, under proper asepsis, is attended with little, if any, danger. Let me urge every man to make a diagnosis. When he has done this, refer his case to the surgeon. In all operations a thorough preparation and observance of minute detail, not necessary here to discuss, as every good surgeon knows them, is essential.

After-treatment. The operation having been made, the gallbladder stitched to the wound or to the wall of the incision, it should be drained either with gauze or an ordinary catheter. The patient should then be placed in bed, either on the right side, or propped up with pillows.

THE USES AND ABUSES OF ATROPINE IN THE TREATMENT OF THE COMMONER EYE DISEASES.

By L. ROSA H. GANTT, M. D.
Spartanburg, S. C.

In the whole pharmacopeia there is no drug so useful when properly employed, nor so dangerous when improperly used, in the treatment of eye diseases as atropine, and it is my purpose to set forth in this short paper the most frequent uses and abuses of this drug in eye work—a paper which I hope will give some suggestions to the busy general practitioner, for it is he who usually sees these cases first. Many injured eyes have, in emergency treatment, been seriously impaired by the instillation of a few drops of atropine when simple cleansing and a bandage might have saved them.

The action of atropine in dilating the pupil is two-fold, for it acts by not only stimulating the dilating fibres but by paralyzing the contracting fibres of the sphincter of the iris, and also the fibres of the ciliary muscle. Its effect is shown in from ten to fifteen minutes after instillation and does not entirely disappear until after a week or ten days; hence, atropine is the most powerful mydriatic that we have.

The usual strength employed is a 1 per cent. solution of atropine sulphate, but in eyes with a high grade of inflammation two per cent. may be well borne by a majority of patients. Some persons, however, are highly intolerant of atropine and not long since a patient in my office exhibited all the symptoms of atropine poisoning in ten minutes after one drop of a one-half of

*Read before the Spartanburg County Medical Society, Nov. 27, 1908.

one per cent. solution had been put in the eye. Yet, on the other hand, I had at the same time a patient using a one per cent. solution in the eyes three times a day, extending over a period of five months, without any toxic symptoms. Most assuredly not all inflammations in the eyes require atropine. Conjunctivitis per se should not be treated with atropine as the delicate membrane is already inflamed and the atropine but adds to the irritation, but the most frequent complication of conjunctivitis—ulcer of the cornea—requires atropine, as these ulcers are almost always accompanied by iritis. Corneal diseases form 25 to 35 per cent. of ophthalmic affections and over 13 per cent. of blind people have lost their sight by corneal disease; consequently the general practitioner sees a large majority of these cases, and should know how to handle them. Atropine is the sheet anchor in the local treatment of keratitis, but even here it must be used with great discrimination. In deep ulcers on the margin of the cornea atropine should not be used, for the pupil dilating and pushing the iris against the weakened periphery usually perforates the floor of the ulcer and if the atropine solution is a strong one, or has been used several times, the iris pushes on out and forms a hernia of the iris, or a corneal fistula, both of which become quite troublesome; hence the rule—atropine for central ulcers, eserine for marginal ones. But even in central ulcers where, on account of the presence of old synechiae, the pupil refuses to respond to atropine by dilating, this drug should be dispensed with because it is likely to increase intra-ocular tension and bring about glaucoma. In interstitial keratitis, especially during the acute stage, atropine must be used, and used freely, even after we can no longer see through the corneal opacity, for the

opacity will clear up later and if too little atropine was used during the height of the disease, we find later when the cornea is clean that the iris has been bound down by adhesions which cannot be broken up. In episcleritis or superficial scleritis, atropine should not be used except where the cornea is involved, which is a rare complication. In deep scleritis it is very important to use atropine, not only for the purpose of paralyzing accommodation, but to draw the iris out of the way. However, if intra-ocular tension is increased atropine should be stopped and a miotic used.

In the local treatment of iritis atropine is the sovereign remedy and should be used in one per cent strength three or four times per day for the first week, and after that once a day for, perhaps, another week or two until all pain and redness have disappeared, the mistake being often made of not using it long enough. If used early in the disease it will prevent or break up adhesions of the iris, and even if seen late, after synechiae have formed, it is very necessary to use atropine to break them up if possible and secure sufficient dilatation to insure the normal flow of the aqueous humor. Even in patients past middle life suffering from iritis we are justified in using atropine and if intra-ocular tension increases paracentesis can be done.

In the treatment of iritis atropine has a three-fold use: (1) It contracts the iris and lessens the amount of blood in its vessels; lessening inflammation; (2) by giving the pupil complete rest through its paralyzing effect on the sphincter pupillae, and (3) by breaking up iritic adhesions if they already exist, or preventing the formation of new ones.

Where the ciliary body is largely involved, often the use of atropine causes pain, because when the vessels of the

iris become depleted of blood the vessels of the ciliary body take up this blood and become over-distended, and in such cases the atropine must be stopped if the tension is increased, or suspended for awhile if the instillation of it adds to the pain.

In prolapse of the iris a mydriatic should not be used, hence atropine is contra-indicated. The use of atropine has caused many cases of glaucoma, even in eyes which had not before given any symptoms of this disease, and in eyes in which the angle of infiltration is already reduced, blocking this angle, intra-ocular tension is elevated and glaucoma results. Hence, we cannot be too careful in the use of atropine in the eyes of patients over forty-five years of age.

In conclusion I would quote a few lines from Fuchs, who says:

"Too much caution cannot be inculcated in regard to the senseless way in which atropine is often used, as it still is unfortunately, by many general practitioners, who instill atropine in every kind of eye disease, in many cases, e. g.—in conjunctival catarrh, atropine is not only superfluous but also causes the patient annoyance through disturbance of vision produced by its use; and in eyes which have a tendency to glaucoma, atropine may actually inflict great injury by determining an attack of glaucoma. Accordingly atropine should be employed only upon quite specific indications, and then no oftener than is required to obtain the result desired."

It is not too early to begin to lay your plans for attending the annual meeting of the state association at Summerville, April 21 and 22, next. House of Delegates convenes April 20.

Remember the time, April 21-22, 1909; and the place, Summerville.

Special Abstract

REMARKS ON THE GEOGRAPHICAL DISTRIBUTION AND ETIOLOGY OF PELLAGRA.*

(Abstract from an article by Louis W. Sambon, M. D., of Naples, Lecturer to the London School of Tropical Medicine, in the British Medical Journal, London, II, 1905, p. 1271 et seq.)

In America pellagra has been recognized in Mexico, in Brazil, and in the Argentine Republic.

In view of its gravity, I think it is urgent to draw the attention of Colonial medical officers to this disease. In Italy pellagra is considered one of the chief plagues of the country, and it is dreaded not so much on account of its deadliness, but because of the indescribable wretchedness and suffering to which it gives rise during its slow, cruel course of many years.

In 1881, in Italy, 104,067 persons were reported as suffering from pellagra. In 1903 it was calculated that there were about 60,000, but statistics on pellagra are very unreliable. The disease is not avowed because it is considered degrading, its notification is not compulsory, and its diagnosis is often difficult; besides, the local authorities have at times good reasons to make believe that it is decreasing in their respective districts. However, an examination of the mortality tables shows very clearly that pellagra is not decreasing, but increasing. It would be no exaggeration to place at about 100,000 the cases in which the disease is plainly manifest; of these 3,000 at least are in the lunatic asylums of the kingdom.

Pellagra has been ascribed to the most varied causes, such as insolation, poverty, insanitary dwellings, syphilis, irritant

*See Dr. Babcock's letter, under Correspondence, January issue.

oils, bad water, alcohol, garlic, onions, maize. Della Bona, Sprengel, Heuster, Benvenisti, believed it to be a modified or degenerate form of leprosy. A great number of authors have considered it to be a true "sunstroke of the skin," and D'Oleggio, in 1784, proposed that the disease should be called "vernal insolation," because of the appearance of the erythema and other symptoms in the early spring (February, March, April). *Mal del sole* was an old popular name for the disease, and certainly the skin manifestations of pellagra are influenced by the action of the sun's rays.

In any case, insolation is not the *prima causa* of pellagra. I will not discuss the futility of the arguments brought forward by those who ascribe the disease to such general and vague causes as bad water, insanitary dwellings, and poverty. Neither will I take up your time to prove that syphilis, alcohol, irritant oils, onions, and garlic are not the causal agents of pellagra; but the maize theory needs a most searching scrutiny because it is the theory now almost unanimously accepted.

Lussana, Frua, and others endeavored to prove that maize caused pellagra owing to deficiency in nutritive principles. This theory is now untenable. It has been proved that maize stands in a high position as regards alimentary value. Besides, insufficient nourishment may bring about inanition and marasmus, but will never cause the well-marked morbid state which is distinctive of pellagra.

The majority of writers have ascribed the disease not to normal maize, but to damaged maize, some believing the symptoms to be due to certain toxic substances developed in the course of the decomposition of the grain under the influence of vegetable organisms, others

attributing them to the organisms themselves. Consequently, the various fungi and bacteria found on maize have all been incriminated in turn as the causative agents of pellagra.

In 1871, Lombroso claimed that pellagra is not an infection, but an intoxication. He explained that certain toxic substances are developed in the parenchyma of the decomposing corn through the activity of saprophytic organisms, and that those poisons cause the disease. His experiments proved that the common saprophytes of maize are harmless in themselves. Working in conjunction with Dupre, Brugnatelli, and Erba, he obtained from fermenting maize a watery extract, an alcoholic extract and a red oil by means of which he declared pellagra symptoms could be induced in man and animals. His theory is that there are two different poisons, and that their combined action gives rise to the complex symptoms of pellagra in the same way as sphacelinic acid and cornutin are believed to give rise to ergotism. The two toxins are (a) a narcotic substance resembling conium contained in the watery extract, and (b) an alkaloid resembling strychnine which is contained in the alcoholic extract and also in the oil, to which he gave the name of "pellagrozein." In fowls inoculated with these toxins, Lombroso observed diarrhoea, loss of feathers, and death; in rats, wasting, choreiform movements, contractures, and death; in men, vomiting, diarrhoea, desquamation of the epidermis, giddiness, dilatation of the pupil, and malnutrition.

Against Lombroso's experiments, it has been pointed out that the acute symptoms he obtained by means of toxic substances extracted from fermenting maize are in no way comparable to those of pellagra, and that identical results

follow the administration or inoculation of analogous products extracted from wheat and other harmless foods when subjected to decomposition.

We know that a number of fungi attack the skin and the mucous membranes exposed to the air, causing as a rule very light lesions. Some, however, under special circumstances, may reach the internal organs and even cause a general infection which may bring about the death of the host. But of all of the diseases of man known to be caused by fungi, such as thrush, ringworm, pinta, tokelau, mycetoma, actinomycosis, not one in any way resembles pellagra.

Several investigators have incriminated the aspergilli and have positively declared to have reproduced pellagra experimentally by the intravenous injections of these hyphomycetes and their spores. But these statements are not consistent with those of the far more numerous scientists who have produced experimental aspergillosis independently of any preconceived idea.

Aspergillosis is very frequent amongst birds, and affects chiefly their respiratory organs. In mammals it also affects the lungs and bronchial tubes, but it may attack the spleen, the kidneys, and the muscular tissue. The histological character of the lesions are the same both in birds and mammals—a number of minute tubercle-like nodules or granulations formed by tufts of mycelia surrounded by epithelioid cells, some giant cells and leucocytes. In experimental aspergillosis we get the very same lesions, only their distribution varies with the method of infection. The infection due to aspergilli differs from that due to bacteria, in the fact that its intensity is exactly proportionate to the quantity of spores injected. These germinate but can never reproduce by fructification, and

therefore can never give rise to a secondary generalization nor to the transmission of the infection. Aspergillus can attain fructification only on the exterior surfaces or in cavities communicating directly with the exterior.

The aspergilli incriminated as causing pellagra are aspergillus fumigatus and A. flavescens. A. fumigatus is not found solely on maize, but is very widely distributed. It is found on the grains of millet, vetch, barley, wheat, rye, on oats, on hay, on straw, on dead leaves, on grapes, in the soil, in the atmosphere. As a pathogenic agent, it is found in the respiratory organs of birds. It has been found also in the horse. In man, it has been found in local affections of the skin, conjunctiva, ear, kidneys, intestines, and lungs.

Several authors have described a pneumo-mycosis aspergillinia in men whose work compels them to handle grain or flour contaminated with the spores of aspergillus fumigatus. The disease begins either by bronchitis and an asthma-like dyspnoea which grows worse at night, or as ordinary tuberculosis, by cough, haemoptysis, and a greenish expectoration. The patient loses flesh and presents some fever towards evening. Auscultation reveals bronchitic rales and blowing respiration. The disease may last from three to eight years, and seldom terminates fatally unless complicated by tuberculosis.

The fungus incriminated by the majority of authors as the causative agent of pellagra is, strange to say, the common blue mould, penicillium crustaceum (*P. glaucum*) which is found everywhere on the most heterogeneous media, such as jam, fruit, bread, cloth, cheese, all kinds of cereals, vegetable debris, and old boots. Maggiore and Gradenigo found it within the eustachian tube in

two cases of otitis. In perusing these numerous observations, there is one fact which strikes one very forcibly, and that is that each investigator has claimed to have reproduced true pellagra either in animals or man, sometimes on himself, by inoculating beneath the skin, injecting into the veins, or administerating by way of the mouth the special organism or toxic product which he happens to have isolated. But the peculiar symptoms and anatomical lesions of pellagra, together with its epidemiology and geographical distribution, shows very clearly that the disease must have one specific cause, and that it cannot be brought about indifferently by any of the numerous fungi, bacteria, and chemical products to which it has been ascribed. It would be unwise, therefore, to place much reliance on any of these experiments. The fact is that we may err just as much in the appreciation of the results of experimentation as in the interpretation of natural facts. Similar mistakes have been made again and again in the investigation of almost every disease. Richardson claimed to have produced rheumatism by injecting lactic acid and by its internal administration. Klebs and Tommasi Crudeli stated that they had reproduced malaria in animals by inoculating a bacillus found in the soil of malarious localities.

The current maize theory of pellagra has no better foundation than that of the current rice theory of beri-beri. It is quite possible, however, that maize and rice, like the swamp in malaria, may represent necessary etiological factors in the natural history of the diseases with which they have been so long associated in popular belief. But, so far, no conclusive evidence has been adduced in support of the maize theory of pellagra. The maize theory of pellagra is chiefly an Italian theory.

In the first place, we know nothing positive about the introduction of maize into Europe. The general belief is that it was brought over by the Spaniards from South America, and Humboldt does not hesitate to say that it is indigenous to America only. But Bock (1532) Ruel, and Fuchs state that it came from Asia, and Santa Rosa de Viterbo says that it was introduced by the Arabs into Spain in the thirteenth century.

Although we have no positive information as to the date of the introduction of maize into Italy, it is certain that the cereal was used as an article of food about the middle of the sixteenth century, that is to say, about 200 years before the date assigned to the appearance of pellagra. We are thus confronted by a very serious dilemma. If we allow that pellagra existed and was known by other names previous to its recognition by Frapolli in 1771, then we can no longer assign a date for its introduction into Italy, and the most potent argument in favor of its association with maize is lost. If, on the other hand, we maintain that it did not exist before that date, then it is difficult to explain why it did not manifest itself sooner after the introduction of the dangerous cereal.

I think there can be no doubt as to the antiquity of pellagra. In fact, the majority of authors already concede that the "Alpine scurvy" described by Odoardi in 1776, and mentioned by Pujati in 1740, was nothing more nor less than pellagra. Then again, the mal del padrone, very briefly sketched by Ramazzini in his famous work on the diseases of occupations in 1700, could hardly be referred to anything else. Frapolli himself believed in the great antiquity of pellagra, and considered it to be the same as pellarella, a disease mentioned as early as 1578 in the regulations for admission to the Hospital-Major of

Milan. Indeed, he affirmed that "pellagra is as old as the sun."

It has been pointed out again and again by numerous observers that the areas of pellagra endemicity and those of maize culture by no means overlap, and, indeed, there are vast regions in which maize is extensively cultivated and much eaten, but in which pellagra is absolutely unknown. A most convincing example is that of the United States of America. On the other hand, pellagra has been observed very frequently in places in which maize is not cultivated and in people who have never used maize as an article of food. To overcome these embarrassing obstacles to the maize theory the ingenious term "pseudo-pellagra" was invented. Now, therefore, the disease is pellagra only when it can be in any way connected with maize diet; in every other case it is nothing more or less than "pseudo-pellagra." In 1903 Garbini described several cases which he had the opportunity of observing in the lunatic asylum of Messina, and stated that physicians from the north of Italy would have had no hesitation in diagnosing pellagra, but this could not be allowed because these patients were natives of Sicily, where maize is not cultivated, and, at any rate, having been long secluded, they had certainly not eaten maize for several years prior to the appearance of their erythema.

The topographical distribution of pellagra within its endemic areas is very unequal. The differences are often very marked between contiguous districts, although there may be no difference whatever in the alimentation of the respective populations. Unfortunately, we have no precise data as to the conditions which determine the endemic areas of pellagra.

However, all the information we have

tends, I think, to prove that the stations of pellagra are limited to low lying districts or to other localities with a high water-table.

In the days of Casal, the Province of Ovideo, in Spain, was one of the chief centres of pellagra. In 1900 it was the province which suffered least from this cause, whilst the highest incidence of the disease occurred in the Province of Madrid. Now, no change whatsoever has taken place in the maize cultivation of the Province of Ovideo, the people there eat maize just as much as before, and no improvement has ever been adopted in the storage or preparation of maize. On the other hand, maize is hardly ever used as an article of food in the Province of Madrid. No less striking are the facts afforded by the epidemiology of the disease in Italy. Pellagra is still very prevalent in the north of Italy where maize forms the staple food of the peasants, but in recent years the disease has become far more prevalent in Umbria and in the Marche, and it has invaded the provinces of Siena and Grosseto in Tuscany, those of Campobasso, Teramo and Aquila in the Abruzzi and Molise where maize does not represent a principle article of food. It has also invaded the Province of Rome, the Campagna, the Puglie, Sicily, and Sardinia, thus proving that it has a tendency to spread slowly, but widely and independently of maize cultivation, and maize theories.

A very important fact is that pellagra does not attack indiscriminately all those who live chiefly on maize, but only the field laborer. The inhabitants of towns, however poor, and although fed exactly in the same way as the field laborer, are not attacked. Towns in the very heart of intensely pellagrous areas show that same remarkable immunity towards pellagra that is witnessed in towns of ma-

larious regions towards malaria. Probably, therefore, it is in the maize field that the peasant comes in touch with the specific agent of pellagra, and possibly through the agency of some biting fly.

Another important fact is the age-incidence of the disease. Pellagra is chiefly a disease of middle age. The majority of cases occur between 20 and 50 years of age. If maize, or bad maize, were the cause of the disease, children would undoubtedly be the principal sufferers, as is the case in ergotism.

The seasonal recurrence of the erythema and other symptoms of pellagra point strongly in favor of a living organism, and decidedly against a toxic substance as the cause of the disease. Pellagra does not attack all the members of a family at approximately the same time, as would be the case if the disease were due to some toxic food partaken of equally by all. Then, again, pellagra is not transmitted by means of lactation.

Until quite recently the majority of physicians believed in the hereditary transmission of pellagra, although it is difficult to understand how a poison could be transmitted by heredity. Contagion was not admitted, but cases of conjugal pellagra have been reported.

All these facts seem incompatible with the maize theory. I consider, therefore, that the general unquestioning acceptancy of this theory is to be regretted, notwithstanding that it is supported by the authority of great names.

If I were asked to suggest a new theory of pellagra, merely as a working hypothesis, I should feel inclined to draw attention to the many analogies between pellagra and some of the protozoal diseases which have been recently worked out. But my reason for bringing the subject of pellagra before this meeting is not to propound a new theory, but to urge the necessity of a more thorough

investigation of this grave and widespread disease.

No doctor should be so busy that he cannot attend his state association meetings. Few of them are, but lots of them think they are.

Clinical Reports

REPORT OF A CASE OF INTESTINAL OBSTRUCTION DUE TO ADHESIONS.

By H. H. BURROUGHS, M. D.
Conway, S. C.

Mrs. W. E. D., white, farmer's wife, aged about 30 years, mother of six children. About two years ago had an attack of severe abdominal pain of a colicky character, which yielded to treatment along these lines. From this time on, however, she had repeated attacks of more or less severity, which she and family regarded as attacks of colic. Only once or twice during period did she receive medical attention for these attacks. She being of a constipated habit, the trouble was usually relieved when she succeeded in securing an evacuation of the bowels. On November 14, 1908, she had an attack of this abdominal pain which was of unusual severity but of short duration. Dr. Dusenbury was called, but before leaving to visit her, was notified that she was better. He did not see her at this time. About midnight, November 21, the doctor was again called, reaching her bedside about 2 o'clock, a. m., and found her suffering the most excruciating pain in abdomen, from which she had suffered all day. This attack began early in the morning as she raised herself from fastening her shoes. After administering such remedies as the symptoms indicated, he left. Later advice that day, by phone, informed him she was resting fairly well. He saw her again the morning of the 23rd, and found abdomen slightly distended, accompanied by considerable pain. All attempts at relief resulted in only temporary benefit. I first saw the case with Dr. Dusenbury about 9.30 p. m., Nov. 23, and patient very restless, suffering great pain in abdomen, rapid pulse, temperature 99, abdomen very tender, considerably

swollen, borborygmus pronounced. Knots or lumps showed readily through the abdominal walls and became very much plainer during the paroxysms of pain, at which times the peristaltic wave could be observed, these lumps manifesting themselves in the region of the umbilicus. The patient described the pain as burning, stabbing, grinding in character. She wore an anxious expression of the face, and was in full possession of her mental faculties, her mind remaining perfectly clear throughout her illness, and to the moment that she was anaesthetized. Patient was vomiting considerable quantities of bile, mucus and water, or anything taken by the mouth, the vomiting occurring as the paroxysms of pain wore off. Our diagnosis was intestinal obstruction, and at this time we thought it intussusception.

After discussing operative measures, it being late in the night, it was decided to try anodynes and antispasmodics and wait for daylight. Accordingly, morphine and atropine were administered hypodermically, the dose of atropine being considerably increased (just what size dose being used, I do not now remember). Compound spts. ether was administered in dram doses at two hour intervals during the night. Her husband having been informed of the seriousness of the situation and the character of the trouble, surgical intervention was mentioned to him so that, in the mean time, he might make some suggestions to her along this line should no improvement in her condition take place by morning. We left her at midnight; she was sleeping and rested well the remainder of the night. On the morning of the 24th, before Dr. Dusenbury's arrival, well-meaning but meddlesome friends administered a dose of salts (in spite of the most positive instructions to the contrary) hoping to secure an action on the bowels anyway. This immediately produced almost unbearable pain and vomiting, the vomitus now being sterco-raceous. Dr. Dusenbury immediately telephoned me to come and bring the Drs. Norton with me, and come prepared to operate. Being unable to find Dr. J. A. Norton, Dr. E. Norton and I arrived at patient's home and found her as described above, the sterco-raceous vomiting being now quite frequent. Dr. Norton confirmed our diagnosis and expressed an opinion at the time that

the obstruction was due to adhesions. It was suggested that high enemata of warm olive oil be tried.

After several attempts to pass a colon tube for the purpose of injecting the oil, it was found that the tube, on reaching the sigmoid flexure, would double on itself and slip out of the anus as fast as introduced. This condition of affairs caused me to think that the obstruction was in the sigmoid flexure and was volvulus, and I think left all of us in doubt as to where the exact point of obstruction was. At this stage the patient was told the exact condition of affairs as to her physical condition, and the pros and cons of surgical intervention. After listening and carefully questioning her informant, she rejected the surgical means proposed, stating that she preferred dying as she was. On the days of the 25th and 26th she complained of no pain, sterco-raceous vomiting keeping up all the while.

I next saw her Nov. 27, on which date I received a message stating she wanted an operation and for me to come prepared to operate. I found condition of patient unchanged, except of course, she was very much weaker. Dr. Dusenbury prepared patient for anesthesia by first giving her one hyoscine-morphine-cactine tablet hypodermically. As soon as its effects were manifest he began the administration of chloroform, very little of which was required for the operation. I opened the abdomen along the linea alba, the length of the incision being about four inches. Then introducing my hand into the abdominal cavity along the course of the descending colon to, and including, the sigmoid flexure and finding nothing abnormal, we extended the incision from near the os pubis to the umbilicus. Now casual inspection of the small intestine showed it to be highly congested and enormously distended with gas. Beginning now near the upper portion of the jejunum we inspected every portion of the intestine, being careful to keep the intestine taken from the abdominal cavity wrapped in warm sterile normal salt solution. About the middle portion of the ileum the point of constriction was found, the intestine being firmly held in the grasp of an adhesive band which gave the intestine the appearance, at the point of constriction, as though a ligature had been thrown around the gut (the condition found being that as asserted by Dr. Norton

at his first visit to the patient). This band was ligated on either side of the intestine to avoid any possible danger of hemorrhage, catgut ligature being used, and divided. The bowel, below the point of constriction, immediately began to fill and peristaltic action began reasserting itself in a feeble way.

Owing to the distention of the gut above the constriction and its inactivity, it was decided best to puncture the intestine and allow a portion of the gas and fecal matter to escape. This being done, and great care being used to prevent any part of the contents of the intestine from escaping into the abdominal cavity, the puncture was closed with the lambert suture. The abdominal cavity was then washed out with warm sterile normal salt solution. At this juncture, owing to the failing circulation, it became necessary to resort to cardiac stimulation, this being used to the limit. The peritoneum was now closed by continuous suture; the abdominal incision being closed by a layer of, first, deep, and then one of superficial interrupted suture. The wound was then covered with sterile gauze, then iodoform gauze, and this with a layer of absorbent cotton with sterile guaze covering that. After applying an abdominal bandage the patient was put back to her bed at one o'clock, surrounded with bottles of hot water, having been under operation 55 minutes. There was practically no hemorrhage, not over a tablespoonful of blood having been lost.

Now the sad part of our report comes. Our patient never rallied, dying at 3.10 p. m. In conclusion: In justice to all I think it would be well to state that none of us expected the recovery of the patient, at this stage, each and every one doing his part in the face of, and in spite of, the evident hopelessness of the case, our only regret being that our patient refused to accept in time the only hope for life we could and did offer her.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

County Societies

AIKEN.

The monthly meeting of the Aiken County Medical Society convened at Aiken, Feb. 1, 1909. There were present thirteen members and four visitors. A carefully prepared paper on gastric ulcer was read by Dr. T. C. Stone. The subject was discussed by Drs. Walden and H. H. Wyman, Sr. Dr. Swan, a visitor, gave his personal experience with his own case. Upon motion of Dr. Walden a committee to enlighten the public upon the subject of tuberculosis was appointed, consisting of Drs. Walden, C. A. Teague and Quattlebaum. Dr. W. D. Wright, our "doctor in politics," gave the society some valuable information concerning medical legislation to be introduced or now pending. After completing the program and finishing the necessary business, the society adjourned for lunch and to meet again the first Monday in March.—Theo. A. Quattlebaum, M. D., Sec'y.

ANDERSON.

The Anderson County Medical Society has held three interesting meetings this year. We have been trying the semi-monthly meetings now for a year and we find the plan successful. Attendance has improved and the meetings are more enthusiastic. Where we met only once a month, and sometimes not so often, we found that the enthusiasm generated at one meeting would die down before the next. But when we meet regularly twice a month not so much energy is required to generate society interest.

Anti-Tuberculosis.

At the meeting on January 4, president Gray appointed an anti-tuberculosis commission, consisting of Drs. Nardin, Henry, and Townsend. This committee, with the help of the president and secretary of the society, was instructed to arrange for a public meeting at which the anti-tuberculosis league of Anderson county could be organized. This public meeting was held in the court house on the evening of January 19, with Dr. Nardin presiding. Dr. J. B. Townsend was the first speaker and though, according to his statement, he had not special-

ized on oratory, his was a most excellent address. (I will send the full manuscript for publication in the Journal). Mr. Vines, pastor of the First Baptist church, made an earnest talk emphasizing the part the church should bear in the crusade. Several other speakers were called on for impromptu remarks, most of whom responded cordially endorsing the movement. The league was organized with the following officers: President, W. H. Nardin, M. D., vice-president, Mrs. J. R. Vandiver; secretary, Miss Lois Watson. Some twenty vice-presidents were nominated to assist in the work in their respective parts of the county. Several hundred of the pamphlets on tuberculosis issued by the State Board of Health were distributed in the audience. The meeting was a distinct success. The large and attentive audience plainly showed that the public is ready to be taught and to assist in this work if the physicians will but take the lead. Not a little of the pleasure of this meeting was due to the delightful music furnished by the Chambers orchestra. The county society has taken up the study of tuberculosis.

At the meeting on February 1, the dues for 1909 were raised from four to five dollars. The place of meeting was changed to the rooms of the Chamber of Commerce. The name of Dr. A. L. Smethers was presented for membership. Twenty members were present at this meeting which was one of the best meetings we have had.

Acting on the recommendation of the commission on tuberculosis of the medical society, the following program has been arranged:

February 1st.

1. Early Diagnosis of Tuberculosis, J. W. Parker, M. D.
2. Diagnosis of Tuberculosis in Secondary Stage, L. J. Mann, M. D.
3. Use of Tuberculin as a Diagnostic Agent, R. L. Sanders, M. D.

February 15th.

4. Importance of Early Diagnosis, W. F. Ashmore, M. D.
5. Pathology of Pulmonary Tuberculosis and its Relations to Symptoms, Prognosis, Treatment, W. H. Nardin, M. D.
6. New Methods of Treatment, J. B. Townsend, M. D.

7. Open Air Treatment in this Climate, J. O. Sanders, M. D.
 8. Prophylaxis, Personal and General, J. O. Wilhite, M. D.
 9. Importance of Scientific Feeding as an aid in Treatment, W. C. Bowen, M. D.
 10. Laboratory Diagnosis, its Place and Importance, Technique of Staining; Demonstration of Specimen, S. W. Page, M. D.
 11. Duty of Physician to Family and Public, B. A. Henry, M. D.
 12. School Hygiene, Its Relation to Prophylaxis, J. P. Duckett, M. D.
- J. R. Young, M. D., Secretary.

The meeting in Summerville, April 20-22, next, will be the biggest and best ever held by our state association. There is not a doctor in the state who can afford to absent himself.

CHESTER.

Chester County Medical Society meets on the first Monday of each month. Monday, January 4th, was not only the regular meeting day, but was also the day for election and installation of officers. The following officers were elected to serve for the ensuing year: President, J. G. Johnson; vice-president, D. A. Coleman; secretary and treasurer, W. B. Cox; censors, H. E. McConnell, R. L. Douglas, and C. B. McKeown.

A Notable Member.

The society has one honorary member whose name, I think, is worthy of mention —Dr. A. F. Anderson. Dr. Anderson is now ninety years old, and was engaged in active practice for more than sixty-five years. If it were not for his failing eyesight he could yet perform active service. It was only two or three years ago that he retired from active work. Notwithstanding his extreme age his mental faculties are well preserved, and they are still apparently as active as ever. He had a large country practice, and always rode horse-back, and has always enjoyed excellent health. He was a surgeon in the Confederate army and served throughout the war.

Partnership Dissolved.

The partnership hitherto existing between

Drs. Pryor and Lander has been dissolved by mutual consent. Dr. Pryor has arranged with Drs. Johnston and Wylie to assist him in his hospital work. Dr. Lander's plans for the future are as yet undetermined.

An Interesting Plan.

One who is interested in a special branch or department of medicine will in reading the current literature note anything of interest in his special line more quickly than one who is not specially interested. Now there are several such members of this society, and the president has requested each one of these to report at each meeting of the society anything new or of interest in his special line. Dr. S. W. Pryor will report on general surgery and gynecology; Dr. J. G. Johnston on diseases of the eye, ear, and throat; Dr. W. B. Cox on diseases of digestion; Dr. McConnell on diseases of children; and Dr. A. M. Wylie on genito-urinary diseases.

At this meeting the society had as a visitor Dr. J. W. McConnell, Professor of biology at Davidson College. He is a brother of Dr. H. E. McConnell, of Chester, and although now a resident of North Carolina he is a native South Carolinian.—W. B. Cox, M. D., Secretary.

DORCHESTER.

The regular monthly meeting of the Dorchester County Medical Association was held at St. George, Monday morning, February 1st, and was well attended, the following members being present: Drs. G. B. Harley, A. R. Johnston, Carlisle Johnston, G. A. T. Johnston, J. B. Johnston, P. M. Judy, W. P. Shuler, E. W. Simons and E. D. Tupper.

An interesting paper on "Some of the Good Results of Curement" was read by Dr. Tupper and furnished the subject for discussion.

Suggestion to a Councilor.

The next meeting will be at Summerville, on March 1st. Dr. Julius A. Parker, being essayist, and as all the up-country members present at this meeting have promised to attend, we are looking for a record-breaking attendance, and it would be a good idea for the Councilor to drop in to see what this part of district number one is doing.—Edmund W. Simons, M. D., Secretary.

GREENWOOD.

The Greenwood County Medical Society has passed through a useful and prosperous year, and now starts out with renewed energy for 1909. Dr. R. B. Epting is president, and Dr. J. B. Hughey secretary and treasurer. Dr. J. B. Workman, a member of the Laurens Society, has moved to Ware Shoals, in this county, and has connected himself with us. Dr. B. L. Chipley has left us and is travelling in Tennessee and Kentucky for a drug house.—J. B. Hughey, M. D., Sect'y.

No doctor should be so busy that he cannot attend his state association meetings. Few of them are, but lots of them think they are.

SPARTANBURG.

The Spartanburg County Medical Society held its regular meeting the last Friday in January, and if the attendance and interest shown at the first meeting of the year keeps up, this will be the most successful year in the society's history.

A very interesting paper on Chronic Rhinitis was read by Dr. J. H. Mills, and thoroughly discussed by Dr. L. J. Blake. Dr. F. L. Potts read an excellent paper on Medical Ethics, which was very freely discussed. At the close of this discussion Dr. J. L. Jefferies, ex-president of the society, presented each member with a copy of Principles of Medical Ethics of the American Medical Association. Dr. Jefferies also ordered for the members copies of the constitution and by-laws for county societies, as prepared by the A. M. A.

Two new members, Dr. W. A. Wallace, formerly of Richmond, Va., and Dr. W. F. Leonard, of Reidville, were received at this meeting.

All who attended the 4th District meeting at Seneca expressed themselves as being delighted with the scientific and social features of the meeting, and with the hospitality of the Oconee society.

Pleasant things are still being said about the delightful Banquet held at the Spartan Inn at the close of the annual meeting in December, for which due credit was given the committee in charge.—L. Rosa H. Gantt, M. D., Secretary.

SUMTER.

The regular monthly meeting of the Sumter County Medical Society was held in the parlors of the Hotel Sumter on January 7th. The following officers were elected to serve for the year 1909: President, Dr. Archie China; vice-president, Dr. H. A. Mood; secretary and treasurer, Dr. E. R. Wilson; delegate to the South Carolina Medical Association, Dr. H. M. Stuckey.

The meeting was well attended. The subject for discussion "The Prophylaxis and Treatment of Tuberculosis," was ably handled by Dr. H. M. Stuckey, the regular appointee, and the discussion was entered into by Dr. S. C. Baker, Dr. Walter Cheyne, Dr. Archie China, Dr. F. K. Holman, Dr. F. M. Dwight and Dr. Furman. The essayist, Dr. Wilson, read a paper on "Adenoids."

After the meeting the members adjourned to the dining room where a very excellent dinner was enjoyed.

Our society now numbers 18 members, and is in a very flourishing condition.—E. R. Wilson, M. D., Secretary.

YORK.**Election of Officers.**

At the November meeting of the York County Society, the following officers were elected to serve for the year 1909: Dr. M. J. Walker, president, Yorkville, S. C.; vice-president, Dr. B. N. Miller, Smyrna, S. C.; secretary, Dr. Jno. I. Barron, Yorkville, S. C.; censors, Dr. T. N. Dulin, Clover, S. C.; Dr. W. A. Hood, Hickory Grove, S. C. Our January meeting was a tuberculosis meeting, and I am going to send the articles for publication at an early date. After the meeting the members partook of a delightful banquet, served by our distinguished hotel proprietor, J. Ed. Sadler.

Dr. Cheyne has consented to deliver addresses at Rock Hill, S. C., and Yorkville, S. C., next Wednesday, February 10, subject, tuberculosis. These addresses are to be to the doctors and public, it being the aim of our society to get the public interested in such matters.—Jno. I. Barron, M. D., Sec'y.

Remember the time, April 21-22, 1909; and the place, Summerville.

Personal

Dr. W. L. Pou, of St. Matthews, was presented with a handsome loving cup by his fellow-citizens on February 17, the occasion being the fiftieth anniversary of his wedding.

Dr. J. B. Workman has removed to Ware Shoals, and has affiliated with the Greenwood County Society.

Dr. B. L. Chipley, of Greenwood, has given up practice for the present, and is now travelling in Tennessee and Kentucky for a firm of manufacturing chemists..

Dr. Robert Wilson, Jr., of Charleston, gave a public lecture in Greenville, February 3rd, on Tuberculosis, under the auspices of the Greenville County Medical Society.

Obituary**E. L. PATTERSON, M. D.**

The town and county of Barnwell was cast in a deep gloom or sorrow when it was learned that Dr. E. L. Patterson had passed away at St. Luke's Hospital, in New York City, on Jan. 24th.

Dr. Edward Lawrence Patterson was one of the most widely known physicians in Western Carolina. For more than twenty years he had been a successful practitioner in Barnwell and surrounding counties. He had for years been a member of the State Medical Association. He was also a member of the Aiken and the Barnwell county medical societies, having served both of these as president. He had since the organization of the Barnwell Guards been identified with the company, and has been one of the hardest workers for the success of the organization. At the time of his death he was second lieutenant. During Governor Ellerbe's administration he was commissioned as a surgeon in the State militia.

Early in life Dr. Patterson identified himself with the Barnwell Baptist church and he was a member of both the Masonic and K. of P. orders, and was counted one of the best members of both organizations.

Dr. Patterson was the son of the late Edward L. Patterson, a wealthy planter of Barnwell county. His mother was Miss Sarah Louise Miles, of Fairfield county.

In 1890 he was married to Miss Katherine Allen, of Allendale; of this union two children survive him, Misses Katherine and Marguerite. Besides his wife, Dr. Patterson is survived by five brothers, and four sisters.

J. G. DUCKWORTH, M.D.

Dr. J. G. Duckworth, one of the best known physicians of Anderson County, died at his home, ten miles north of the city, on Wednesday afternoon, February 10th, as the result of a stroke of paralysis suffered on Tuesday night. He was stricken while at the home of a patient several miles from his home, and until the following morning it was feared to move him. Dr. Duckworth was about sixty years old and is survived by his wife and one daughter, Mrs. C. E. Elgin, of Alabama. The funeral services were held at Lebanon Baptist Church, of which he was a member, and interment was with Masonic honors, he having been a member of the Masonic Lodge in Anderson. Dr. Duckworth was graduated from a Maryland college, and had been practicing medicine in Anderson county for more than twenty-five years.

J. HARPER DONALD, M.D.

Dr. J. Harper Donald, one of Greenville county's highly esteemed citizens, died at his home in Piedmont, Friday morning, January 22nd, at 11 o'clock. He had been in declining health for several weeks, but his death was hastened by a stroke of paralysis, which he suffered on Wednesday night previous. He had been a practicing physician for 32 years.

Dr. Donald was a son of the late Dr. J. F. Donald, and was born in Donalds, in 1856. His father moved to Greenville county in the early seventies. Dr. Donald first read medicine under his father and later pursued his studies at the South Carolina Medical College at Charleston. After graduating at this institution he settled at Piedmont and has lived in that town ever since. He was engaged in extensive farming operations also.

Dr. Donald married Miss Grace McKenzie, daughter of the late Frank E. McKenzie, of Grove Station, and she with seven children, three sons and four daughters, survive him.

News and Miscellany

THE TRI-STATE MEETING.

The Tri-State Medical Association of the Carolinas and Virginia held in Charleston, S. C., February 16, 17, what was probably the most successful session in the history of its existence. Over one hundred physicians from the states of Virginia, North Carolina and South Carolina, in addition to a number of prominent guests including Dr. C. H. Mayo, of Minnesota; Dr. J. Madison Taylor, of Philadelphia; Dr. Homer Gibney, of New York; Dr. Charles P. Noble, of Philadelphia; Dr. H. O. Reik, of Baltimore; Dr. Wharton Sinkler, of Philadelphia; Dr. T. A. Williams, of Washington; were registered at the meeting. The session was held in the New England Banquet Hall of the Charleston Motel. Among the South Carolina doctors who were present and read papers, were: Dr. R. E. Hughes, of Laurens, on "Religion Versus Medicine"; Dr. LeGrand Guerry, of Columbia, on "Appendicitis"; Dr. J. G. Johnston, of Chester, on "Carbuncle"; Dr. G. W. Heinlisch, of Spartanburg, on "Ligation of the External Iliac"; Dr. C. W. Kollock, of Charleston, exhibited two unusual cases of polypus in sisters; Dr. A. E. Baker, of Charleston, on "Operation for Tic Douloureux"; Dr. J. W. McCanless, of Chesterfield, on "Indigestion in Diabetes", and others. It was to be regretted, however, that a very large proportion of those whose names were on the program failed to be present when their turn came to read their papers. As usual, with the high order of membership of the Tri-State Association, the papers and discussions were all of a highly instructive and enlightening character.

The members, with ladies accompanying them, were entertained on Tuesday afternoon at a reception at the Roper Hospital given by the South Carolina Medical Society. The ladies who accompanied members to the meeting were entertained by

the ladies of Charleston with teas, automobile rides and lunches at the Country Club and elsewhere. The Association was entertained at a smoker on Tuesday evening, which was entirely informal and enjoyable. There were no official entertainments but the cordial hospitality extended to the visitors was of the kind which is thoroughly in accord with the fame of Charleston as a host.

The following officers were elected to serve for the ensuing year: President, Dr. LeGrand Guerry, Columbia, S. C., vice-presidents, Dr. J. W. Jersey, of Greenville, S. C., Dr. W. W. McKenzie, Salisbury, N. C., and Dr. J. A. White, Richmond, Va.; secretary and treasurer, Dr. J. Howell Way, Waynesville, N. C.; executive council, Drs. R. C. Bryan, Richmond, Va., J. A. Burroughs, Asheville, N. C., C. F. Williams, Columbia, S. C., Steven Harnsberger, Catlett, Va., D. B. Tayloe, Washington, N. C., H. E. McConnell, Chester, S. C., J. S. Irvine, Danville, Va., A. J. Crowell, Charlotte, N. C., and A. E. Baker, Charleston, S. C.

Richmond, Va., was selected as the place of meeting for the next session.

MINUTES OF THE 4TH DISTRICT MEDICAL ASSOCIATION.

The 4th District Medical Association convened at the Opera House, Seneca, S. C., Monday, January 25th, 1.30 p. m. The weather was ideal, the trains on time and when president H. R. Black called the meeting to order there were about sixty doctors present and a number of the citizens. Dr. B. T. Sloan, president of the Oconee Medical Society, in a few well chosen words made every member feel at home and welcome. J. H. Burgess, D. D. S., mayor pro tem., followed with an eloquent address of cordiality, turning over the Master Key of the city to president Black to be used by each member of the association in unlocking any treasure house he might wish. Dr. Black responded to these addresses in his usual happy manner, after which the work of the day was entered upon.

The Symposium on Medical Progress and Post Graduate Instruction consisted of the following papers: American Surgeons and Surgery, Dr. S. C. Baker, Sumter. He confined his remarks mainly to the Mayos'

Clinic at Rochester, Minn. Next in order "European Hospitals," Dr. Davis Furman, Greenville; English Hospitals by Dr. L. O. Mauldin, Greenville; "Medical Observations in Cuba," by Dr. H. R. Black, Spartanburg; "South American Medicine and Surgery," Dr. E. C. Doyle, Seneca. It is safe to say that such an array of papers covering almost the entire civilized world has seldom been equalled. The interest shown was marked, the attention given perfect, which is not always the case.

Following the Symposium a paper on Hernia by Dr. J. C. Harris, of Anderson, discussion leader Dr. W. C. Black, Greenville. Dr. E. W. Carpenter of Greenville, "Otitis"; "Diabetes Mellitus" with special reference to diagnosis and treatment, by Dr. J. L. Jefferies, Spartanburg. Dr. L. Rosa H. Gantt, of Spartanburg reported a rare case of "Angio-Myxo-Sarcoma of Larynx." Dr. W. H. Nardin being called away, Drs. Carpenter and Mauldin discussed this paper. Most of the papers received well merited discussion, but not having a stenographer the names and remarks cannot be given.

After the close of the regular program some important changes were made in the constitution. The president will in future be chosen from the ranks each year, and for the ensuing year the following full corps of officers were elected: Dr. E. A. Hines, president; Dr. W. A. Tripp, vice-president; Dr. E. W. Carpenter, secretary and treasurer. The time of meeting was changed to Tuesday, Nov. 15th, and Easley the place, though Union came in for a strong vote.

The Oconee Society was host at a seventy-five cover dinner. Dr. J. S. Stribling was toast-master; and the following speakers, Drs. Black, Furman, Thompson and Carpenter, responded to the several toasts in an interesting way.—E. A. Hines, M. D., Sec'y.

ASSOCIATION OF SURGEONS OF THE SOUTHERN RAILWAY.

The association will meet in Jacksonville, Fla., April 6, 7, and 8. Secretary Surgeon J. U. Ray has sent out the following preliminary program:

Following surgeons have sent in the titles to the papers they will read. Any surgeon

having any case of interest is requested to report the same; and any who have not sent in the titles of their papers are requested to do so at once, as it requires considerable time and work to arrange the final program:

"The Railroad Trespasser." Surgeon Lucien Lofton, Emporia, Va.

"Examination for Railway Service from Observations of the Local Surgeon," Surgeon J. H. Mitchell, Mt. Vernon, Ill.

"Minor Railroad Surgery," Surgeon T. O. Meredith, Burgin, Ky.

"A Case of Railway Injury," Surgeon E. M. Folsom, Boonville, Ind.

"Injuries of the Eye," Surgeon-Oculist M. F. Coomes, Louisville, Ky.

"Delayed Union in Fracture of Long Bones," Surgeon J. F. Weathers, New Albany, Ind.

"Some Practical Points in Eye Injuries," Surgeon-Oculist Dunbar Roy, Atlanta, Ga.

The management of the Southern Railway and allied lines are interested in the success of this association and desire that the local surgeons show their interest in the work by attending the annual meetings and reading papers and reporting cases that might be of interest and of mutual benefit to the surgeons.

A few members are in arrears for 1908 dues, and if they will send me same it will enable me to close up my books for the year.

Those who expect to read papers, and have not sent me titles of same, please do so at once.

I am trying to arrange for reduced rates from Jacksonville to Havana, Cuba, and return. Those who expect to make this trip will assist me very much if they will advise me at once how many tickets they will probably want. As soon as I get this information I can then make some definite arrangements with the transportation company.—J. U. Ray, Secretary and treasurer.

The War Against Consumption.

The Anti-Tuberculosis League of the South Carolina State Medical Association has started work in the city and will open an office at Shirras' Dispensary building, on Society street. This building will be open three afternoons each week, and a physician will be in attendance who will be glad to instruct the public generally

in the care of tuberculosis patients, and especially along the lines of preventing the spread of the infection. The poor will be treated free of charge, and early diagnosis made. When necessary a physician or a nurse will be glad to visit the patients at their homes and show them the most modern method of ventilation and hygiene, and the prevention of the conveyance of the germ from the patient to the healthy members of the family. The physicians who have charge of this work are Dr. Robert Wilson, Dr. J. C. Sosnowski, Dr. Edward Rutledge, Dr. F. B. Johnson and Dr. John L. Dawson. It is hoped that the public will take advantage of this endeavor to fight the Great White Plague.—Chas. News and Courier.

Book Reviews

DISEASES OF THE SKIN AND THE ERUPTIVE FEVERS.

By Jay Frank Schamberg, M. D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Octavo of 534 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$3.00 net.

Here is a little book presenting the subject of diseases of the skin in a thoroughly brief and practical manner. The author goes straight to the point and does not stray away. He discusses the evanthemata in a sperarate chapter and rightly calls attention, in a pointed way, to the importance of skillful diagnosis as between the ordinary dermatoses and the rashes of the eruptive fevers. The book is beautifully illustrated with half tone cuts, and appears to us to be one that would appeal, with particular force to the student. The mechanical work is of the highest quality.

GONORRHOEA IN WOMEN.

By Palmer Findley, M. D. Professor of Gynecology in the College of Medicine in the University of Nebraska, Omaha; Gynecologist to the Clarkson Memorial Hospital and Wise Memorial Hospital; Fellow of the American Gynecological Society. Cloth \$2.00. St. Louis, Mo., C. V. Mosby Medical Book and Pub. Co., 1908.

In this little book of 112 pages we find a comprehensive monograph devoted to a

disease of inestimable importance and which for many reasons, unhappily, is often neglected, and perhaps not infrequently very carelessly treated. It is a pity that a work of such great practical value as this should be presented to the public clothed in such careless typography, and it is to be hoped that the next edition (and one will certainly be demanded) will have a careful revision in this respect. A valuable bibliography, principally foreign, is appended.

ARTERIOSCLEROSIS.

Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment. By Louis M. Warfield, A. M., M. D., Instructor in Medicine, Washington University, Medical Department. Eight original illustrations. C. V. Mosby Medical Book Co., St. Louis, Mo., 1908. Price, cloth, \$2.00 net.

Dr. Warfield gives us a monograph of 165 pages upon a condition which, in the last few years, investigation has shown to be worthy of the serious attention of students of pathological conditions. The little work is illuminating and will prove of interest to the practitioner.

A HAND-BOOK OF SUGGESTIVE THERAPEUTICS, APPLIED HYPNOTISM, PSYCHIC SCIENCE.

By Henry S. Munro, M. D., Americus, Ga. Second Edition. C. V. Mosby Medical Book Publishing Company, St. Louis, Mo., 1908. Price, cloth, \$3.00 net.

An unusually entertaining little book is this of Dr. Munro's. He is enthusiastic in his estimate of the practical value of suggestive therapeutics; and this as it should be, for if the student and the exponent of any special procedure were not warmly devoted to the cause, then no one would be likely to embrace it. The book appears to be put together without any particular regard to system, yet it is very readable, nevertheless, and contains a lot of information that could be put to distinct practical use by all practitioners. It is not a profound work, and will appeal for this reason, to that large class of busy men whose attention is directed more to the meat than to the mass of fluffy ruffles which often so uselessly encompasses it.

Current Reviews

MATERIA MEDICA AND THERAPEUTICS.

E. A. HINES, M. D.

Practical Value of Sour Milk.

George M. MacKee, in the Dietetic and Hygienic Gazette, states that the present use of sour milk is based on the following attributes: First, the casein has been subdivided and transformed so as to be more readily absorbed than that of sweet milk. This makes fermented milk of great value when a non-irritating, easily digested, quickly absorbed and well-tolerated food is required. Second, as a result of carbo-hydrate fermentation, sour milk contains lactic acid, which tends to prevent the development of putrefactive and other injurious bacteria, both in the milk itself and in the intestines. Hence, such milk is safer than sweet milk of questionable origin and purity. Third, the carbohydrates have been converted into lactic acid, so sour milk is free from sugar which makes it a valuable aliment for diabetic patients.

Phenolphthalein.

Elmer reports a series of animal experiments with phenolphthalein, and concludes that it probably belongs to the class of intestinal irritants, is non-toxic, at least in doses up to 25 or 30 grains, and that the average dose may be placed at from 1 to 5 grains in the powdered form, either at night, or in divided doses after meals. In hyper-acidity it should be combined with an anti-acid.

Treatment of Hysteria.

Meyer is convinced that hysteria, being of psychogenic origin, requires psychic treatment as the base, but that it should be supplemented by all other measures known to medicine, especially the psycho-dietetic. General debility may be the cause of the outbreak of hysteria, and the physician should aim to nourish and strengthen the entire organism by every possible means. He warns against applying Freud's theory of sexual trauma, except by an expert, as liable to do more harm than good. Traumatic hysteria is best prevented by opportunity for work, at the same wages, but with lesser physical demands. It is im-

portant to find out what measures were applied by others before instituting treatment of hysteria, so as to avoid these special ones in case they have failed.

Modern Heart Remedies.

His reviews the various drugs at our disposal, quoting the saying that the skilled physician can be told from the unskilled by the way in which he gives digitalis. He comments on the tendency shown by many physicians to prefer the very latest pharmacologic preparations, and remarks in conclusion that there is great need for a means of influencing the paralysis of the heart and vasomotors in acute infectious diseases, especially pneumonia. Nothing in our present arsenal is absolutely reliable in the collapse and heart failure of the infectious diseases. Even infusion of adrenalin-saline solution may prove ineffectual.

Local Treatment of Diphtheria.

Appiani affirms that local treatment is as necessary as antitoxin in treatment of diphtheria, and his experience has shown that hydrogen dioxide is best for the purpose, and especially when used with polyvalent serum locally applied.

Inhalation of Fumes of Nitric Acid in Chronic Bronchitis.

Campanella reports favorable results in treatment of chronic bronchitis from inhalation of the steam from boiling water containing a few drops of nitric acid. The fumes are inhaled for 5 or 10 minutes at a time. They not only arrest the cough and reduce expectoration, but they modify the catarrhal soil of the bronchial mucosa with ultimate complete cure. They seem to have also a favorable action on the blood production and on assimilation.

OPHTHALMOLOGY AND OTOLOGY.

EDWARD F. PARKER, M. D.

European Eye Clinics.

Wolfenstein, Leo, Cleveland (The Cleveland Medical Journal, October, 1908), believes that the American clinics in the east furnish better opportunities for practical work in ophthalmology than the European, but that along strictly scientific lines the latter are superior. In Vienna, the Mecca of American physicians coming to Europe to study, an American medical association is of much assistance to those not proficient

in the German language. The opportunities of the American physician are good. The methods used and advantages in Jaeger's and Fuch's clinics are described, and other Vienna clinics mentioned. The clinics of other noted men in other German cities, as Uhthoff, Eversbusch, Axenfeld, etc., are briefly considered. Berlin does not compare well with Vienna for obtaining instruction in ophthalmology. The clinic at the Royal London Ophthalmic Hospital is described and other ophthalmic hospitals mentioned.—Abs. Ophthalmology, M. D. S.

Division of Auditory Nerve for Painful Tinnitus.

Ballance describes an operation for which he claims that it brings the distressing symptoms induced by certain forms of internal ear disease within the control of surgery, in that such symptoms may be cured by division of the auditory nerve, just as epileptiform tic in the territory of the fifth nerve is cured by dividing the nerve or removing the Gasserian ganglion. Just as this division of the trunk of the fifth nerve, we may hope some day to be able to spare the motor root, which is in no way concerned in the disease, so in division of the auditory nerve we may hope to be able to spare the nerve of Wrisberg, which is in no way concerned with auditory symptoms. Labyrinthine symptoms have their origin in the cochlear ganglion or in the vestibular ganglion, or in both ganglia, but we can not yet separate surgically the cochlear and vestibular divisions of the auditory nerve, so as to spare one or the other as the symptoms may indicate.—Abs. A. M. A.

Ignorance and Middle-Ear Disease.

Hays complains of carelessness in carrying out orders of the general ignorance of the seriousness of ear conditions, aside from pain and discharge, and of fear of operation. The last is largely eliminated in large cities; the two former factors disappeared only when a pain in the ear becomes to patients as significant of possible mastoid disease, as a pain in the right side is of appendicitis.—Abs. A. M. A.

Beriberi.—C. V. Saldanha states that beriberi is due to a substance he calls "arsin," which is the product of a fungoid disease of uncured rice. This substance is mostly contained in the rice dust. The

poorer classes consume not only the rice, but the water in which it is cooked. In some cases the arsenic causes diarrhoea and is eliminated; tolerance is soon established, and beriberi results. Beriberi is neither contagious nor infectious any more than is arsenical or alcoholic paralysis. The neuritis in beriberi is quite secondary. The constant factor in the disease is vasomotor paralysis of terminal branches with tendency to chronic congestions of organs in which they ramify. Tea and stimulants seem to mask the effects of arsenic, and when systematically withheld from a staple diet of uncured rice, an epidemic of beriberi is the usual result.—Abs. British Med. Jour.

(Note analogy to supposed causation of pellagra.—Ed.)

During 1908 the deaths of 2,261 physicians in the United States and Canada were noted in The Journal, the equivalent of an annual death rate per thousand of

17.39, based on an estimate of 130,000 practitioners. This rate does not differ materially from those of the previous six years, which were, respectively: 1907, 16.1; 1906, 17.2; 1905, 16.36; 1904, 17.14; 1903, 13.73, and 1902, 14.71. The age at death varied from 21 to 102 years, the average being 59 years, 6 months and 25 days. The number of years of practice of the decedents varied from the first year of practice to the seventy-sixth, the average being 30 years and 5 months. About 14 per cent. of those who died were members of the American Medical Association. Chief among the death causes were heart disease, violence, pneumonia and cerebral hemorrhage, in the order noted.—Jour A. M. A.

Remedy for the pain of insect bites.—Patrick Maloney writes: "The bite of mosquitos and various gnats, the stings of wasps, bees, etc., have often produced a considerable amount of pain and discomfort, and even death has resulted as a consequence of such stings in human beings.

"For some time past I have used iodin crystals in saponated petrolatum, 30 to 40 grains to an ounce. A few drops of this is rubbed over a mosquito bite with magical effects. I have also rubbed it over parts stung by wasps of various sorts and sizes. The pain of the sting was very quickly relieved. It seems to me it might be used, in addition to other measures, in cases in which one was bitten by a viper."—J. A. M. A., Jan. 9, 1909, p. 136.

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TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay.

County Society	President.	Secretary	Time of Meeting.
Abbeville	J. B. Britt	C. C. Gambrell, Abbeville	
Anderson	J. L. Gray	J. R. Young, Anderson	Semi-Mo., 1st and 3rd Mon
Aiken	C. A. Teague	T. A. Quattlebaum, Gr'tville	Monthly, 1st Monday.
Bamberg		J. J. Cleckley, Bamberg	
Barnwell	A. B. Patterson	L. F. Bonner, Blackville	
Beaufort	H. M. Stuart	M. B. Cope, Port Royal	
Charleston	John L. Dawson	A. J. Jersey, Charleston	
Cherokee		B. L. Anken, Gaffney	
Chester	J. G. Johnston	W. B. Cox, Chester	
Clarendon	A. S. Todd	C. B. Geiger, Manning	Monthly, 1st Monday.
Chesterfield	T. E. Lucas	J. W. McCanless, Chesterfield	Quarterly.
Colleton	J. T. Taylor	T. G. Kershaw, Walterboro	Monthly.
Darlington	J. F. Watson	J. C. Lawson, Darlington	
Dorchester	J. B. Johnston	E. W. Simons, Summerville	
Edgefield		J. G. Edwards, Edgefield	Monthly, 1st Monday
Fairfield	R. B. Hanahan	Samuel Lindsay, Winnsboro	
Florence	F. H. McLeod	J. H. Peele, Cartersville	Quarterly.
Georgetown	Olin Sawyer	W. M. Gaillard, Georgetown	
Greenville	L. L. Richardson	W. M. Burnett, Greenville	Monthly, 1st Friday.
Greenwood	R. B. Epting	J. B. Hughey, Greenwood	Monthly, 1st Monday.
Hampton	J. L. Folk	C. A. Rush, Hampton	Monthly, 1st.
Horry	A. D. Lewis	J. S. Dusenbury, Conway	
Kershaw	W. J. Dunn	A. W. Burnett, Camden	Monthly, 2nd Monday.
Laurens	S. F. Blakeley	J. H. Teague, Laurens	Bi-Monthly, last Monday.
Lee	B. L. Harris	L. H. Jennings, Bishopville	
Lexington	W. L. Kneece	J. J. Wingard, Lexington	Monthly, 1st Tuesday.
Marion	B. M. Badger	T. W. Carmichael, Fork	Quarterly.
Marlboro	W. M. Reedy	Chas. R. May, Bennettsville	
Newberry	P. G. Ellisor	W. E. Pelham, Jr. Newberry	
Oconee	B. F. Sloan	H. E. Rosser, Westminster	
Orangeburg	W. L. Pou	D. D. Salley, Orangeburg	Monthly, 3rd Tuesday.
Pickens	J. L. Bolt	D. B. Gilliland, Easley	Monthly, 2nd Wednesday.
Richland	L. A. Griffith	Mary R. Baker, Columbia	Every 2nd Monday night.
Saluda	D. B. Frontis	J. D. Waters, Coleman	
Spartanburg	S. T. D. Lancaster	L. Rosa H. Gantt, Sp'tnb'g	
Sumter	Archie China	E. R. Wilson, Sumter	Monthly, last Friday.
Union	J. T. Jeter	R. R. Berry, Union	Monthly, 1st Thursday.
Williamsburg	W. S. Lynch	J. B. DuRant, Lake City	Weekly
York	M. J. Walker	John I. Barron, Yorkville	Monthly.



ANNUAL MEETING

The South Carolina Medical Association

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April 21-22, 1909.

House of Delegates April 20

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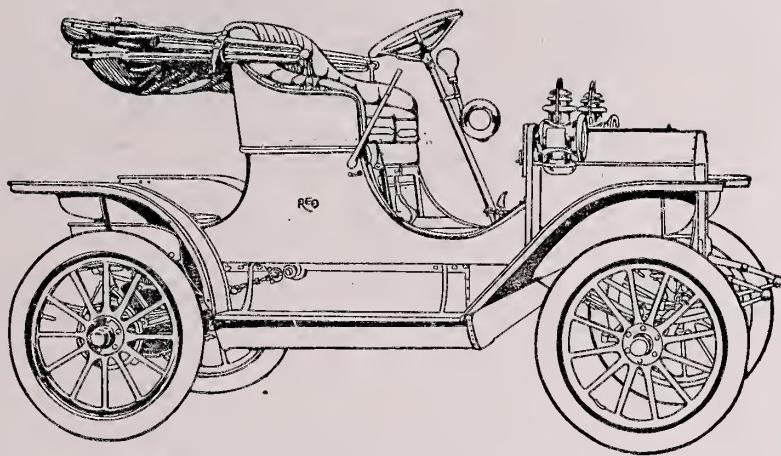
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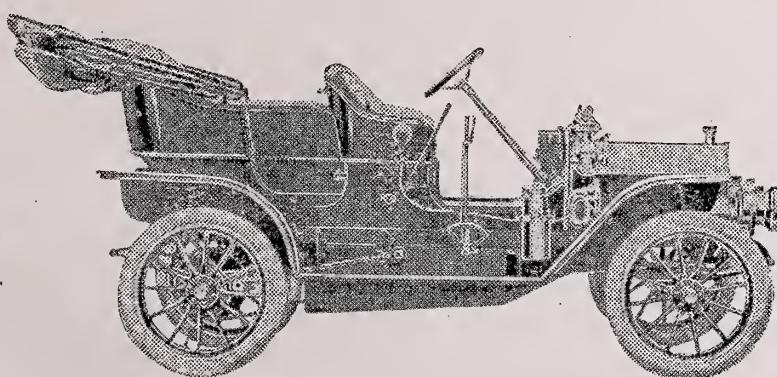
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The Journal OF THE South Carolina Medical Association



Volume V.

Greenville, S. C., March, 1909

Number 3

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The Journal of the South Carolina Medical Association

Published Every Month Under the Direction of the Board of Councilors

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VOL. V.

J. W. JERVEY, M. D., EDITOR

No. 3

MARCH, 1909

ANNUAL SUBSCRIPTION, \$2.00

The Journal is published monthly under the auspices of the South Carolina Medical Association. Original Articles are solicited. Members who do not receive their copies will please notify the Business Manager. Correspondents and Secretaries of County Societies are urgently requested to send reports of their meetings, and items of news that may be of interest to the profession, to the Editor. All articles should be typewritten. Illustrations sent with articles will be printed. For prices of reprints see advertising pages.

All matters must be in the hands of the editor by the 5th of each month.

Proofs of all Original Articles appearing in the Journal are revised and corrected by their authors. The Journal is in no sense responsible for expressions in Original Articles.

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Journal S. C. Med. Assn., Greenville, S. C.

Editorial

Any member, or one-time member, of the State Association, reading this, and who does not receive the JOURNAL after this issue will please bear in mind that it is because he has not paid his dues for the current year, and his name does not appear in the official list of his County Society as furnished us by his County Secretary. It will be well, therefore, for every member to make an immediate request of his County Secretary to send in at once an officially corrected list of paid up members to the JOURNAL. By taking this little trouble all chances of mistake will be obviated and all members entitled to the JOURNAL will receive same in due order.

If you have not paid your dues, then do so at once, and make it your personal business to see that your County Secretary reports your name as officially entitled to membership and all of its privileges. With the present spirit of progress and enthusiasm pervading the profession all over the country, no physician can afford not to be associated with the organization. Remember, unless

you are a member of your County Society you cannot be a member of the State Association, or of the American Medical Association. Think once, or twice, if you will, and act without further delay.

SOCIAL ANTICIPATIONS.

The fact that Dr. F. Julian Carroll is chairman of the committee on entertainment for the Summerville meeting next month, is an omen presaging a season full of happiness and good cheer. Had we been informed as to other members of this committee, we might be able to predict still more of these pleasurable commodities. It is enough to know, however, that our friend, Jule, who is everybody's friend, is busying himself with the details of social entertainment for the visiting members of the Association at the annual meeting. For instance, a general reception is proposed for the twenty-first; there is to be a "tea talk" on the afternoon of the twenty-second by Dr. Charles U. Shepard, at his beautiful tea gardens, Pinehurst;

then on the evening of the same day a "smoker" will be tendered at the Pine Forest Inn.

We have no doubt that short excursions will be arranged to visit the famous "Dead Man's Hole," where the trembling children of a passing generation feared for their lives each time they crossed the narrow little foot bridge; to the picturesque ruins of old Dorchester Church where now the voice of the screech-owl alone is heard between the walls that once resounded with the thundering tones of a pulpit oratory existing only in the long-ago; to Bacon's Bridge where British Red Coat and American Patriot set the forest ringing with the echoes of bloody battle; and even perhaps down to the old Middleton Gardens in all the decadent beauty and reeking perfume of a regime that can never be reborn.

These are scenes with which every loyal South Carolinian should wish to be familiar, and we speak of them in the hope that the contemplation of such a delightful visit will be an incentive in addition to the scientific program which will help to insure a large and enthusiastic attendance at the Summerville meeting.

HYGIENE IN THE PUBLIC SCHOOLS.

At a recent meeting of the Laurens County Medical Society a resolution was adopted to offer a medal to each grade in the city schools to be awarded to that pupil who should excel in neatness and cleanliness of person. Drs. Hughes, Christopher, and Ferguson were appointed a committee to act with the teachers in selecting the winners.

By this movement the Laurens County Society has placed itself on record as a public spirited organization and one which is working in accord with the high

and altruistic aims of the best element of the medical profession; and it is acting in concert with the gradually spreading sentiment in behalf of general hygiene and sanitation in the interest of the public health. Not even the sorest of soreheads could, with any reason, attach an iota of selfishness to this action on the part of the County Medical Society, and it will go a long way to establish in the minds of the people of that good community the fact that the medical organization is at work primarily for the good of the public in the reduction of disease and the lowering of the death rate. Intelligent people already know, and others must soon realize, that the first and highest ambition of the true physician is to win in the fight against disease, and the individual or the organization which accomplishes most towards this end will wear the laurels that their splendid ambitions are pursuing.

It is proper to add, in order to place the credit where it is justly due, that this method just adopted by the Laurens County Society for the improvement of the health of public school children, was first brought to the attention of the profession by Dr. E. A. Hines, of Seneca, who read a paper on this subject at the April, 1908, meeting of the South Carolina Medical Association. This paper was printed in October, 1908, issue of this Journal, and Dr. Hines showed very conclusively the advantages of the method by the results that have been achieved in the Seneca schools. His plan is slightly more elaborate than the present Laurens County plan, but it must be remembered that he has been developing his method for several years, and that he started it very much in the same manner that the Laurens Society has commenced.

The method is one which should appeal to the public spirit of every county medical society in this state, and in the United States, for that matter, and we sincerely hope that it will be but a short time before every county society in South Carolina shall have adopted this plan with whatever modifications may be deemed suitable and practicable.

OPHTHALMIA NEONATORUM.

The Section on Ophthalmology of the American Medical Association is engaged in a very meritorious effort to reduce the frightful percentage of ophthalmia neonatorum in this country. To this end a committee with a membership composed of one or more members from each state in the Union has been appointed, and is now at work for the purpose of obtaining information as to the best means to be adopted in the pursuit of this desideratum. Putting this plan into effect, many ophthalmologists have been addressed with the following inquiry: "Do you not consider a ten or twenty per cent. solution of argyrol equally as efficient, more safe, and less open to objection than a one or two per cent. solution of nitrate of silver for use in the eyes of all new born children?"

We do not know what the concensus of opinion will be in the answer to this question, but it appears to us as a self-evident proposition that a better idea of the situation in regard to the effects of these two preparations could have been obtained by addressing the same inquiry to a large number of general practitioners, or by the study of records or the results of experimental observations in lying-in hospitals and maternity homes. Ophthalmologists, as a matter of fact, have but little occasion to see infants at

the time preventive treatment of this kind should be used.

In the light, however, of experience in the treatment of the disease itself after it has fully developed, we feel sure that while argyrol is a very valuable adjuvant to nitrate of silver in the treatment of this affection, yet were we called upon to discard one or the other, we should unhesitatingly relinquish argyrol and retain the nitrate of silver. It is quite possible that argyrol, with its peculiar diffusive and penetrating qualities, and being unquestionably a valuable germicide, while at the same time being almost entirely unirritating and available, therefore, for use in very strong, even saturated, solution—for these reasons, we say, it seems to us quite possible that argyrol might be equally as good a prophylactic as nitrate of silver.

We do not know why the newer preparation should be considered any safer than nitrate of silver except that it can be used in any strength solution without danger to any of the eye structures, yet we should say that this would be no argument for its use in the hands of a careful physician, though it would undoubtedly apply to its use by the ordinary mid-wife. We can see no other reason why it should be considered safer than silver nitrate, for its prolonged use will produce argyrosis just as in the case of silver nitrate.

The extreme solubility of argyrol, making it easy to obtain a solution of very high specific gravity, together with its peculiarly penetrating qualities, as noted above, gives it, in addition to its undoubted germicidal qualities, the highly desirable property of insinuating itself

into the little crevices, cracks and depressions in the conjunctival sac, and floating out to the surface any little particles of loose secretion, which in these cases abound in infection, allowing these to be wiped away and by this means permitting a thorough cleansing of the sac, which is difficult of accomplishment by any other method.

It is a notorious fact that complete and thorough cleansing of the eye in these cases is of the first importance, and some ophthalmologists even go so far as to assert that they can get good results in these cases of blennorrhea merely by the practice of thoroughly cleansing the eye with boric acid solution. We believe, however, that the nitrate of silver treatment is the classical one, and it is seldom that an eye is lost from this disease after the intelligent use of nitrate of silver—that is, a solution of the proper strength used at the proper time, and always with the observance of strict cleanliness.

The use, then, of nitrate of silver at intervals of twenty-four hours, accompanied by the use of strong solutions of argyrol at intervals of a few hours, in addition to further mechanical cleansing by means of frequent flushings with boric acid solution, is, we believe, the most nearly perfect plan of treatment for this infection which has yet been devised; and the percentage of eyes lost under this system of treatment, provided, of course, the case is seen early enough and before corneal ulceration and destruction has occurred, will, we believe, be almost nothing. Some method of treatment may be devised which would be more simple, yet this would be difficult to imagine, but it would hard-

ly be possible to devise a treatment more successful. It is quite as much a specific as is mercury in the case of syphilis.

The following, from the California State Jornal of Medicine, we commend to the careful reading of County Society Secretaries, and others.

A good many County Medical Society Secretaries do not seem to realize the importance of their position. On the County Secretary really depends the whole success or failure of the County Society, and on the County Society is founded the whole structure of medical organization—the State Society and the American Medical Association. The good that these organizations are doing in California and in the whole United States, is incalculable. Most of us do not seem to realize a tithe of the work that is really being done for the betterment of our profession and the consequent further protection of the people. In our own State, consider the difference between the attitude of the average Iglsilator now, and the same individual a few years ago when we were a heterogeneous body of disorganized individuals, not in touch with each other, not knowing what was going on in other parts of the State; not even knowing what should be done for the people nor agreeing amongst ourselves upon anything. Now it is quite different. Physicians in the far North are informed of what is being done by those in the far South. Definite policies are outlined and a large number of widely separated individuals are in close touch in connection with these policies; they inform their own respective legislators why certain things should be done, and in many instances they do this either before the representative is elected, or before the Legislature has assembled. So, too, with the American Medi- cal Association, which is made up of the various State Societies. It is doing a magni- ficient work in bringing together physi- cians from all parts of the country and in unifying our efforts to improve things within our profession and thus help the people whose servants we are, toward the securing for themselves better medical at- tendance.

NOTICE

SIXTY-FIRST ANNUAL MEETING

South Carolina Medical Association

TO BE HELD AT

Summerville, S. C., April 21-22, 1909.

HOUSE OF DELEGATES CONVENES 2 P. M., APRIL 20.

When you buy your railroad ticket to Summerville, get a receipt-certificate from the ticket agent, entitling you to a return rate of one-third fare. This is the customary arrangement.

This year, for the first time, there will be two sections of the meeting—a medical and a surgical. If you have not already sent the title of your paper to the secretary, do so at once.

We print below the preliminary program as furnished by the Secretary, and the list of authorized delegates so far as we have been able to get the names from the various individual county secretaries.

PRELIMINARY PROGRAM OF THE SIXTY-FIRST ANNUAL MEETING OF THE SOUTH CAROLINA MEDICAL ASSOCIATION.

To Be Held At Summerville, S. C., April 20th, 21st and 22nd, 1909.

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H. R. Black, 1909, Spartanburg.

Fifth District:

W. B. Cox, 1910, Chester.

Sixth District:

F. H. McLeod, 1909, Florence.

Seventh District:

F. M. Dwight, 1910, Wedgefield.

Delegates to the American Medical Association.

Walter Cheyne, secretary, ex-officio, Sumter.

R. S. Cathcart, 1910, Charleston.

T. P. Whaley, alternate, 1910, Charleston.

W. C. Black, alternate, 1910, Greenville.

Committee on Arrangements.

Drs. F. Julian Carroll, chairman; J. B. Johnson, E. D. Tupper, Edmund W. Simmons; Drs. C. W. Kollock, C. M. Rees, T.

P. Whaley, of Charleston.

Committee on Scientific Work.

Walter Cheyne, secretary, ex-officio, J. T. Taylor, F. L. Potts.

Committee on Public Policy and Legislation.

LeGrand Guerry, Columbia, R. B. Epting, Greenwood; W. A. Boyd, Columbia.

Committee on the Prevention of Venereal Disease.

T. P. Whaley, C. W. Barron, Davis Furman; president, and secretary, ex-officio.

Committee on Necrology.

J. L. Gray, A. J. Jervey, G. A. Bunch.

Announcements.

Reduced rates will be granted to the bearer of a certificate, duly countersigned by the secretary of this association and the agent of the railroad company, at Summerville, S. C. Do not fail to secure this blank properly filled out by your local railroad agent.

Titles of papers to be read must be in the office of the secretary not later than the first day of April, to appear upon the final program.

Unannounced subjects will have no place on the final program.

Pine Forest Inn will be the headquarters of the association. Reduced rates of \$3.00 per day. House of Delegates—Medical and Scientific Sections—will meet at Pine Forest Inn. Dorchester Inn, \$2.00 per day.

Council will meet 9 p. m. Monday, 19th.

A meeting to organize a County Secretaries' Association will be held on Tuesday, 11 A. M. Every secretary is requested to be present.

House of Delegates meets at 2 p. m., Tuesday, April 21st. Each delegate is requested to present his proper credentials. It is desired that all business matters be disposed of on Tuesday so that the Scientific Sessions shall not be interfered with.

By-laws, Chapter 9, Section 11: "The Secretary of the (County) Society shall send a list of Delegates to the Secretary of the Association, at least ten days before the annual session."

All papers read are the property of the

Association and are to be deposited immediately after reading, with the secretary.

Railroad connections for Summerville may be made with all trains from Columbia and Augusta, over the Southern and Coast Line. Seven trains daily from Charleston.

Order of Entertainment.

Reception at the Pine Forest Inn, April 21st, 9 P. M.

Reception at "Pinehurst Tea Gardens" near Summerville (the only tea gardens in North America). This reception will be tendered the Association by the hospitable founder, Dr. Charles U. Shepard, April 22nd, at 5 P. M.

"A Smoker" at the Pine Forest Inn, April 22nd, 9 P. M.

Order of Business, House of Delegates.

The House of Delegates will meet in the Pine Forest Inn, and will be called to order by the President, at 2 p. m., Tuesday, April 20th. The General Order will be as follows:

Call to order by President, at 2 P. M.
Appointment of Committee on Credentials.
Report of Treasurer.
Report of Secretary.
Report of Scientific Committee.
Report of the Committee on Public Policy and Legislation.

Report of the State Board of Health.
Report of State Board of Medical Examiners.

Report of the Councilors: First District, J. T. Taylor, M. D.; Second District, T. G. Croft, M. D.; Third District, O. B. Mayer, M. D.; Fourth District, H. R. Black, M. D.; Fifth District, W. B. Cox, M. D.; Sixth District, F. H. McLeod, M. D.; Seventh District, F. M. Dwight, M. D.

Report of Committee on the Prevention of Venereal Disease.

Report of Committee on Necrology.

Introduction of New Business.

Miscellaneous Business.

General Session.

Surgical and Medical, Wednesday, April 21st, 10.30 A. M.

Call to Order by the President, S. C. Baker, M. D.

Address of Welcome: Legare Walker, Esq.

Address of Welcome: Dr. F. Julian Carroll.

Subject Unannounced: Mazyck Ravenel,

M. D., Madison, Wis.

Uro-genital Tuberculosis, With Especial Consideration of Tuberculosis of the Bladder: Bransford Lewis, M. D., St. Louis, Mo.

Prevalent Disease of the Panama Canal Zone: J. Adams Hayne, M. D., U. S. A.

Surgical Section.

Chairman, S. C. Baker, M. D., Wednesday, April 21st, 12 M.

1. Empiricism in Surgical Practice: Chas. M. Rees, Charleston.
2. Post-Pharyngeal Abscesses: E. W. Carpenter, Greenville.
3. Tuberculosis of the Head of the Colon Mistaken for Appendicitis; Operation, Death: H. R. Black, Spartanburg.
4. Subject Unannounced: T. Prioleau Whaley, Charleston.
5. Anesthetics; Chloroform versus Ether: Walter Cheyne, Sumter.
6. Similar Symptomatology in Chronic Appendicitis and Chronic Gall Bladder Lesion. Report of Cases: A. E. Baker, Charleston.
7. A Method of Removing Anterior Displacements of the Triangular Cartilage of the Nose. Cases: W. Peyre Porcher, Charleston.
8. An Unusual Case of Appendicitis: Theodore Maddox, Union.
9. Deformities of the Nasal Septum; Their Causes and Effects and the Modern Operation for Their Correction: E. R. Wilson, Sumter.
10. Report of an Unusual Case of Foreign Body in the Eye; Removal after thirty-six years: E. R. Wilson, Sumter.
11. The Relations in Undescended Testicle to Strangulated Hernia. Proper Operation: G. R. Dean, Spartanburg.
12. Surgical Treatment of Goitre: LeGrand Guerry, Columbia.

Medical Section.

Wednesday, April 21st, 12 M.

Chairman, H. R. Black, M. D.

1. Pathological Significance of Diseased Tonsils: John F. Townsend, Charleston.
2. Septic Endocarditis in a Child: Two cases of Hematemesis in infants occurring in same family: J. J. Watson, Columbia.
3. Preventive Tendencies and Measures: Fillmore Moore, Aiken.
4. Sanitation in Small Towns: William Egleston, Hartsville.
5. Hyperchlorhydria; Report of Cases: F. M. Durham, Columbia.
6. Pellagra: G. A. Neuffer, Abbeville.
7. Atypical Lobar Pneumonia: Robert Wilson, Jr., Charleston.
8. "Musca Domestica", The Common House Fly: F. A. Coward, Columbia.
9. Things the Doctor should know about milk: F. A. Coward, Columbia.
10. Cancer of the Uterus; A Plea for Early Diagnosis: H. R. Black, Spartanburg.
11. Mucous Colitis: A. G. Eaddy, Timmonsville.
12. The Surgeon versus the Physician: J. F. Williams, Roebuck.
13. Typhoid Perforations: H. M. Stuckey, Sumter.
14. State Board of Health: A. Bethune Patterson, Barnwell.
15. Infantile Syphilis: Wm. P. Cornell, Charleston.
16. A Few Suggestions on, and the Common Sense Treatment of Indigestion: J. Will McCanless, Chesterfield.
17. The Influence of a Model Physician in the Prevention of Tuberculosis: W. B. Young, Rock Hill.
18. Specialism Among General Practitioners: D. B. Frontis, Ridge Springs.
19. The Treatment of Ophthalmia Neonatorum: J. W. Jersey, Greenville.

Delegates.

Following is a list of the delegates officially elected to represent their respective county societies at the Summerville meeting. Where names are missing from the list below it is because repeated requests for the information have failed to bring reply from the secretary of the county medical society, or have been received too late for insertion here:

The seven councilors, president and secretary, ex-officio.

Abbeville: W. D. Simpson; alternate, C. C. Gambrell.

Anderson: J. R. Young, B. A. Henry, J. C. Harris; alternates, S. W. Page, J. M. Richardson, W. F. Ashmore.

Aiken: W. A. Whitlock, T. A. Quattlebaum. Bamberg:

Barnwell: No organization.

Beaufort: M. G. Elliott.

Charleston: T. G. Simons, J. W. Burn, T. P. Whaley.

Cherokee: No organization.

Chester: A. M. Wylie.

Clarendon: Wm. R. Mood; alternate, Chas. B. Geiger.

Chesterfield:

Colleton:

Darlington: Not elected at time of going to press.

Dorchester: F. Julian Carroll; alternate, J. B. Johnston.

Edgefield: W. D. Ouzts; alternate, S. A. Morrall.

Fairfield.

Florence: J. G. McMaster.

Georgetown: Olin Sawyer.

Greenville: F. G. James, C. B. Earle; alternate, E. W. Carpenter.

Greenwood: S. L. Swygert; alternate, G. P. Neel.

Hampton: T. P. Whatley; alternates, J. L. Folk, M. B. Monsen.

Horry: J. A. Norton; alternate, H. H. Burroughs.

Kershaw: W. J. Burdell; alternate, A. W. Burnet.

Laurens: W. H. Dial, S. F. Blakely; alternates, W. D. Ferguson, A. J. Christopher.

Lee:

Lexington: D. M. Crosson, with authority to name alternate.

Marion:

Marlboro: J. C. Moore; alternate, J. A. Faision.

Newberry: P. G. Ellisor; alternate, C. T. Wyche.

Oconee: J. S. Strubbling.

Orangeburg: J. K. Fairey, C. I. Green; alternates, A. R. Able, D. D. Salley.

Pickens: W. A. Tripp; alternate, C. N. Wyatt.

Richland: Wm. Weston, W. A. Boyd, C. W. Barron.

Saluda: J. D. Waters; alternate, D. B. Frontis.

Spartanburg: J. H. Allen, J. F. Williams F. L. Potts.

Sumter: H. M. Stuckey.

Union: Crown Torrence; alternate, M. W. Culp.

Williamsburg:

Ycrk: E. W. Pressley, J. E. Massey, Jr.; alternates, M. J. Walker, I. A. Bigger.

capacity, together with the Attorney and Comptroller General of the State and their successors in office, are a Board of Health for the State of South Carolina, to be known as the State Board of Health."

Section 958 provides for the election of an executive committee of this board of health, and it seems to the writer of this paper that the Association has lost sight of the fact that the Association is the State Board of Health, and seems inclined to leave all the details of the work of the board to the executive committees. This is right in some respects, but upon every member of this Association devolves the duty of doing all that he can to prevent the spread of the transmissible diseases. Are we doing this duty? The vast majority of us are doing all we can, I believe, but I fear that some of us are not careful enough to instruct our patients and their families and neighbors as to the prevention of those diseases that are preventable, and some of us are not as careful as we should be in our contact with these cases. I have seen a doctor in this state within the last year visit a patient suspected of having scarlet fever, roll the patient about in bed, roll up his shirt and handle him freely. This doctor came out of the house and drove to another house, where there was no suspicion of any contagious disease, went into this house and examined a patient there, without so much as washing his hands.

Some time since, in conversation with a doctor in a town in this state, a doctor who is a very able man, he stated that there was no use in using any phenol or other disinfectant for the stools of a typhoid fever patient, if there was a trained nurse with the patient, as the nurse would bury the stools.

Original Articles

DO WE PAY ENOUGH ATTENTION TO PROPHYLAXIS?*

By W. J. BURDELL, M. D.
Lugoff, S. C.

Section 956, Revised Statutes of S. C., reads as follows: "The South Carolina Medical Association, in their corporate

*Read before the S. C. Medical Association, at Anderson, April 15-17, 1908.

Again, I have known of an epidemic of typhoid fever, that was traced to one well, and the mother of the family stated that she was told nothing by the attending physician as to the disposal of the stools, except to bury them, and nothing was told her as to the danger from flies. Now were the three doctors I have mentioned doing their duty? Other cases could be cited, but it seems to me that these are sufficient to offer as an excuse for this paper. To illustrate the need for careful attention to the details of prevention in these diseases I wish to give you some figures.

In the Report of the State Board of Health for this state, for 1907, there is a tabulated statement of the causes of death in the state for the month of November. This statement is approximately correct, if multiplied in each instance by 2 2-5, it is stated. The necessity for this multiplication is the fact that so many of the doctors in the state failed to report on the blanks furnished them by Dr. Williams. Taking the deaths from tuberculosis, typhoid fever, pneumonia, diphtheria, measles, scarlet fever, whooping cough and anchylostomiasis, corrected as suggested, we find that there were about 3,800 deaths during the year. It would be safe to say that there were from the eight diseases named 4,000 deaths in this state last year. Now all of these diseases are considered today as diseases that can be prevented and if this is true of course these deaths were unnecessary. Estimate each life as worth \$1,000 which is very low, and we find that the state lost \$4,000,000.00 unnecessarily in one year.

Now, we doctors of the state are the ones upon whom the duty of preventing this annual loss falls. Why do I say this? Simply because we are the ones

who know, or should know, how to prevent these diseases.

How are we to go about preventing them? First, by a very careful attention to even the most minute details of preventive medicine in our management of those cases that come under our care, and careful and oft-repeated instructions to the families of the sick, and also to their neighbors; second, by each and every doctor in the state impressing upon the members of the General Assembly from his county the necessity of giving the Executive Committee of the State Board of Health the legislation it asks for; third, by co-operating freely with the Executive Committee of the State Board of Health.

A plan that has been adopted in some states, and that has brought about noticeable results, is the compulsory teaching of the means of preventing these diseases in the public schools. There was a bill providing for this introduced at the last session of the Assembly, but it got "lost." Another plan that has been adopted by several states is the reporting of these diseases to the Board of Health. Immediately upon receiving the report of one of these diseases the secretary mails several copies of a leaflet to the doctor, and he gives a copy to the family and one to each of the neighboring families. These leaflets give in simple language the means of preventing the disease in question. The only objection to this plan is that it sometimes causes friction, as the family doctor feels that the Board is interfering with his business. Of course, this is a mistaken idea, and I trust that before many years this plan will be in use here.

The first suggestion I made as to the means of preventing these communicable

diseases was "very careful attention to the most minute details of preventive medicine in our management of these cases and oft repeated instructions to the family and neighbors." It is not enough to tell the family that the "sputum of a consumptive is poison." Tell them why it is dangerous, and stress the fact that even the smallest drop of sputum is dangerous. Show them how it is possible for flies or other insects to convey the germ. Don't forget that urine may be, and faeces in almost all, if not all, cases of tuberculosis (tuberculosis of the lungs as well as the bowels), are dangerous. In the case of tubercular glands that have broken down and are discharging pus, is there not a great danger of spreading the germ? I have often seen cases of this nature walking around with the outside of the bandages showing pus stains. Do we all burn or boil these bandages?

Again, how many of us take the trouble to explain how the clothing, especially the handkerchiefs, of tubercular patients should be managed? I have been told by a doctor in a town in this state that the handkerchiefs of "tourists" are washed by negro washerwomen for one dollar a dozen. Is the washerwoman instructed as to the proper manner of handling these handkerchiefs? This naturally suggests the question, "Should a consumptive use handkerchiefs that may be laundered?" I believe not, where it is possible to do otherwise. How many of you gentlemen are in the habit of giving your patients careful instructions as to how to prevent his loved ones contracting this disease that is so pre-eminently a family disease? I hope that the vast majority of you have this habit, but I fear that too many of us are merely saying something about the

danger of the sputum in a general way and doing nothing more.

We must remember that the laity as a rule are absolutely ignorant of the nature of bacteria, and they think that so long as they dispose of quite noticeable amounts of material that may contain germs, there is no necessity of caring for the spray driven from a consumptive's mouth during an attack of coughing, or the drop of urine that may happen to fall on the bedding or clothing of the typhoid patient.

Do you say "Oh, it is all theory about these diseases being so easily conveyed by the doctor?" I have heard this statement made by doctors. Because you have been fortunate in not having carried scarlatina infection in your clothing from one house to another does not prove that such has never happened, nor does it prove that you will never do so. You may treat hundreds of cases of scarlet fever and not change your clothing or wear a rubber coat and never convey infection, but it is possible that you may do so some time, and if you do, why, you will feel that that one time amply repaid you for your carelessness. No doubt many abdominal operations could be done with good results in a dirty house, with surgically dirty hands, but what would you think of the surgeon who made a practice of doing his work in that way? Would he not be about as safe as the careless general practitioner? The surgeons have no monopoly on asepsis.

Now, I have no intention of giving you a synopsis of the literature on prophylaxis. I haven't the time, if it were necessary. You can get that from your books. What I wish to do is to impress upon you the necessity for greater care in this line.

The second suggestion, as to influencing legislation, needs no comment. The thing needed in this state is the legislation. Now, many doctors say that they have no influence with the legislators. I believe that the vast majority of the legislators of this state are more or less open to reason, and if the doctors who are known to them, will explain what is wanted and why it is wanted, each doctor to the legislators whom he knows, you will find that the laws will be enacted. The men who say that they have no influence are the ones who are content to sit down believing that they have none and never try to do anything. Do not leave the matter of medical legislation to your legislative committee, or public health laws to the executive committee of the state board of health. These committees will give the matter thought and will study out what seems most needed, and best, and you members of the association must then join in the efforts to get it through.

Now, as to co-operation with the State Board of Health, as your executive committee for that work is commonly called. I would like to state, as a member of that executive committee, that the committee is not making any excuses through me. We feel that we have done as much and as well as could be done when our appropriations and our public health laws are considered. That committee has, as I said, no excuses, but it has a complaint. In the latter part of last year a new plan was adopted as to the registration of vital statistics, and especially as to births, deaths, and causes of deaths, abortions and infectious diseases. You all know the plan for all of you received the circular letters with blanks from Dr. Williams. He sent you stamped, addressed envelopes also, I think. I know he sent

them to me. Now, how many of you sent in those reports? On page 81 of the annual report of the State Board of Health to the Assembly appears a mortality report for the month of November, based upon those reports, and in the explanatory note is the statement that this table will be approximately correct if the figures are multiplied by two and one-fifth. From this one would suppose that a little over one-third of the licensed physicians in the state reported for that month. Now, the registration of these statistics is important. Surely no one questions that. Did not the secretary save you as much time and work as he possibly could? Did it cost you anything to make those reports? Are you not all members of the State Board of Health under the statutes of the state? Was it anything more than your duty to co-operate with the secretary in making those reports? In many states these reports are legally required of every licensed doctor, and I am inclined to believe that this should be the case here.

Please understand that I am not writing this for the benefit of those of you who did make the reports, but I am writing this in the hope that it will appear in the Journal and that those members of the Association who are here will read this paper, and apply what I have written, each to himself.

During the past year some cases have come under the attention of the Board, where there was some friction. Differences as to diagnosis of an infectious disease, etc. The friction happily amounted to nothing, but it is not difficult to conceive of trouble of this kind arising. In a case of this kind it is certainly the duty of a member of this body to co-operate with its executive committee.

Another suggestion that I would make is that we do not realize the duty we physicians owe to the state. Every man owes a duty to his state that varies in accordance with the ability and training of the man. From the fact that he has made a special study of sanitation and preventive medicine, the doctor more than any other citizen is in duty bound to use his peculiar knowledge to lessen the dangers from the transmissible diseases that threaten his state. The doctor should be willing and ready to explain in detail to his patients the best methods of preventing the spread of these diseases, and also to give lectures in his neighborhood, if requested, on this subject. Many doctors think that to do this is unethical, but it seems to me that a doctor could lecture on such subjects to the public in a purely ethical manner. In conclusion, let me urge upon all of us the necessity of paying more attention to prophylaxis, and especially the minutiae.

Discussion

Dr. Wyche: It seems that it falls to my lot to offer an apology, as it were, for the it was some how overlooked. But be that as it may, I think there is a present law under which the executive committee of the State Board of Health has the right to use \$300, or \$500 if necessary. Why do I say that? Because the Act appropriates \$7,000 for the prevention of these contagious and infectious diseases. What better or more efficacious method could be adopted than to use that? I think it goes further and allows about six or seven thousand dollars more with the consent of the Governor. state legislature. I have done that once before. I wish to say as a matter of history that Dr. Burdell did come before the medical committee of the state legislature and ask for an appropriation of \$300 for the purpose of sending out literature to the schools of the state as to the prevention of preventable diseases. I do not think this was defeated by any action, but in the multitude of business at the last session,

We have an intelligent Governor. And I do not believe South Carolina ever had a Governor that would dare deny the State Board of Health that privilege of publication, or refuse the funds necessary to carry out that publication. Not only that, but it seems that the physicians need educating along this line. I want to tell Dr. Burdell and the executive committee of the State Board of Health that I shall expect them to prepare the proper literature and not only send it to the schools, but to every physician in the state. I believe that by doing that we could educate the physicians as well as the other people of the state. I believe conscientiously that we can do more by educating the people in the eradicating of a disease like tuberculosis and other infectious diseases by this method than any other. And I give it as my opinion that there are today thousands of children crowded in your public schools all over the state exposed to the danger of tuberculosis, that could and would be saved from it if you give them this literature. Then why don't they do it? If they do not, I give them notice that the people of the state and the medical profession will hold them responsible and not the legislature. Because the facts are that the appropriation is for the prevention of these diseases and I desire to emphasize that in endorsing Dr. Burdell's paper.

Dr. Coward: We have not the time to go into a discussion of all the infectious diseases, but I think this generation, if it overcomes tuberculosis, will have done something to entitle us to a small monument. One point with respect to tuberculosis, and other diseases, which is neglected day by day—I mean that tuberculosis, probably, as shown by recent studies, is acquired through ingestion and not through inspiration—from bad food and drink, not from bad air. The patient who comes to us for diagnosis and treatment of tuberculosis kidneys is not an advanced "lunger". Take a patient with well-developed tuberculous kidneys and it is not necessary to take out the kidneys; he will die without it. A tuberculous patient doesn't come to you for treatment of his liver, or his eye, because that has developed from his lung disease—it is too late. He got that in his system as a child; it came

from his mesenteric glands and these glands were infected by tuberculous germs taken in probably in his milk; possibly with his food or water. Recent studies by the Bureau of Agriculture of the U. S. have shown dairy cows, and, more particularly, cows kept by private parties, may be in a tuberculous condition which renders them dangerous to anyone using their milk. The cow herself may show absolutely no sign, provided she is not tested, and perhaps even then, in a small percentage only, they may fail to show. How does tuberculosis usually get in milk? From the udder. You go to see a cow—most physicians know little of them—only called on to treat them occasionally, and then as a favor. The tuberculosis comes from the feces discharged daily—tuberculous germs, scrapings from the rectum, even flies, from cows apparently healthy—no cough, no distress whatever to lead to an investigation. Specimens from these cows have shown the germ in a vast number of cases, and I believe it is pretty well established in the minds of all medical men that Koch was wrong when he laid down the dictum that bovine tuberculosis was not dangerous to man. It is practically impossible to get milk from cows, as they are ordinarily handled, without getting at least microscopical portions of fecal matter in the milk. The cow lies down in the stable, becomes soiled; even an ordinarily careful milker will not thoroughly clean it. Sometimes throwing down the hay stirs it up and that gets in the milk bucket. It has been shown that disease comes from these infected mesenteric glands, therefore we must pay more attention to what we eat and drink—considering milk a drink. We all think we eat clean food and take the proper precautions. No man is going to acknowledge that he eats dirt. It is not generally known that the American people eat 740,000 pounds of cow manure every year, but nevertheless it is a fact, and if we are not getting tuberculosis germs, we are getting some others we could get along without—they are not nutritious, or haven't been proved so. With regard to scarlet fever and diphtheria, you will have to take my word for it that those diseases can be carried by milk—we have proved it. Our sanitary precautions have reduced the number of cases and the death rate, but we

should think more of our food and where it comes from and teach others to do so. (On motion of Dr. Weston, Dr. Coward's time was here extended five minutes). Dr. Coward stated further that in his opinion the publication of these pamphlets would help along educational lines and thus bring about desired legislation.

Dr. Wyche: Is it not your judgment, Dr. Coward, that the State Board of Health has the right under the law from the \$7,000 appropriated by the legislature for the prevention of contagious and infectious diseases, to get out the literature and pay for it at the expense of the state?

Dr. Coward: Without reading the laws with regard to the powers of the State Board of Health, and not particularly conversant with the clause under consideration, I think the State Board certainly has the authority to expend that \$7,000 in whatever way they consider best to accomplish the purpose.

Dr. A. B. Patterson: There seems to be a good deal of complaint about the legislature. I was under the impression that we had gotten about all we asked for, and I really see no cause of complaint. I think the trouble is with us, in not following the law that has been given us by the legislature, and I wish to call your attention to a section that in my opinion will help us out in this discussion, and correct these so-called evils. I refer to section 959, in relation to the Executive Committee of the State Board of Health and their duties. They are authorized and empowered to divide the state into health districts and in those districts in which no boards of health exist, they are required to appoint special boards consisting of two practising physicians and one layman; these boards are appointed as required; they are invested with the same power and duties now imposed by law upon local boards in incorporated towns. With these boards appointed and reporting vital statistics as required under the acts, then I don't think there will be so much complaint on that score. We have not succeeded well in getting physicians to make these reports, but they are required to be made by the local boards under this act. I am inclined to think the executive committee have not made any appointments of local boards in the last

twenty years—none in my community in twenty or twenty-five years.

Dr. Burdell (closing): In reply to Dr. Wyche, I would say that on the first day of the re-organization of the State Board, the matter of printing these leaflets came up. I am under the impression that the chairman stated a ruling of the Attorney General that we could not use any of our appropriation for the purpose of printing. I so understood from Dr. Wilson's remarks on that occasion. As to Dr. Coward's remarks, I realize with him that milk is one of the most general means for the spread of these diseases. I only went into a few of the means for their spread. If I had gone into all, would have been talking for a week. As to appointment of local boards of health, the Executive Committee has not seen any legislation requiring them to make these appointments, but on the other hand they must apply to us. This year one locality has applied for the appointment of a local board of health and has gotten it. I don't know what the old Executive Committee did; we have local boards in a great many places. Under the old system of reporting vital statistics, reports were received from two out of one hundred and forty. The local board is an absolute farce so far as getting up vital statistics is concerned, as has been proven by twenty-eight years of experience of the South Carolina Board. In regard to legislation, I intended to hand out more flowers than most doctors do in discussing the legislative body. I made the statement, and believe it, that those men are amenable to reason; tell them what you want, get them to understand it, and you will get it. We have not got more because we have not gone at it in the right way; do not give the majority of the members an understanding of what we want and why, and they would not pass anything they did not understand.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

MEDICAL PROGRESS AND POST-GRADUATE INSTRUCTION, ENGLISH HOSPITALS.*

By L. O. MAULDIN, M. D.
Greenville, S. C.

In my endeavor to give my idea of medical progress as it relates to the hospitals of England, I can do no better than present a summary of facts as they appeared to me while doing hospital work in that country, trusting that you can deduce therefrom those things which within themselves are indicative of medical progress. We all know that science is science everywhere whether it be conceived in the lowliest hut of this district or in the most richly endowed hospital or university of this or other countries, but there are certain environments under which we are placed which tend to modify our methods employed in the deduction of scientific facts, and in the accomplishment of scientific results, and it is of these methods that the progressive physician is always glad to hear.

The hospitals of England, generally speaking, have been longer established than those in this country and for this reason are not constructed with all the advantages consistent with modern requirements, but when new hospitals are established they are usually built with every convenience that could be hoped for by the idealist in hospital construction.

The English clinics were very crowded and I was struck with the submissive spirit of the patients and the profound respect with which they regarded the physician.

*Read before the Fourth District Medical Association at Seneca, S. C., January 25, 1909.

It was my privilege to visit many of the London hospitals and to take some interesting work in the Royal London Ophthalmic (Moorfields Eye) Hospital, London Central Ear and Throat Hospital, and in the London Polyclinic. Among the men connected with these institutions are some of the most brilliant physicians and surgeons of the Anglo-Saxon race. Their abundance of clinical experience has placed them in a position which enables them to speak with authority in their particular lines of work.

On account of original investigation, I think the experiments by Surgeon Claud Worth on squint in Moorfields Eye Hospital are pertinent to the subject under consideration. He has found that practically all cases of squint from time of birth are in hypermetropic eyes and it frequently happens that the higher the degree of hypermetropia the higher the degree of squint. By correcting the hypermetropia and attendant errors of curvature by means of lenses in early life, Worth has succeeded in correcting many cases of squint and in avoiding the necessity of an operation in later years. His experiments have been carried out scientifically with a few thousand patients—sufficient in number to give decisive proof of the correctness of his conclusions.

Mr. Treacher Collins, surgeon also at Moorfields, has made some observations on iritis and concludes that most cases of rheumatic iritis are due to gonorrhoeal rheumatism.

On account of the originality of research, I thought much of the hospitals for the study of tropical diseases—one in London and one in Liverpool, with each of which such a leading authority as Dr. Manson is connected. Medical men from nearly every tropical country

go to these places for study and here they do much original research on the causation and cure of these particular diseases.

Saint Bartholomew's Hospital is one of the oldest and best endowed in England. It was established in 1123, A. D., and is famed not only on account of the men who labored there and left their impress upon the history of English medicine, but also on account of the thousands who today seek that hospital and the treatment of the eminent physicians connected with it. Harvey was teaching there when he discovered the circulation of blood. Richard Owen, the great English anatomist, taught there and served to make this institution famous. It is said that more than one-half of the street accidents and cases of sudden illness occurring in that immense city find their way to Saint Bartholomew's.

Prof. A. E. Wright, of St. Marys Hospital, is probably doing as much up-to-date work in physiological investigation as any other living man. It is worthy of note that his experiments on the kidney with reference to the cause of albuminuria in health and disease show a forward step in medical progress. I would like here to tell you something of his investigations, but time forbids and I am sure you can get better instruction along this line by a study of the notes on the work he is doing. However, he recognizes physiological albuminuria and reasons that in such cases the renal excretory function is not impaired, but that the albuminuria is due to a serous exudation into intact urinary tubules from increased hydrostatic pressure in the renal capillaries, there being a diminished coagulability from lack of calcium in the blood. In kidney lesions where the coagulability of blood has been low-

ered he has reduced the renal edema and accomplished wonderful results in the cure of physiological albuminuria and temporary relief of pathological albuminuria by the medicinal use of calcium lactate, which increases coagulability.

The Anatomical Museum of The Royal College of Surgeons contains the finest dissections on regional anatomy to be found anywhere. In the study of them one can find interesting food for thought and the physician who plans a trip to London should not think his trip complete without seeing them.

The British Museum, though interesting from a scientific standpoint, is not altogether full of interest to the physician. It might be well to note, however, that there are specimens of mummies preserved there that are five thousand years old, yet they retain accurate shape and in some cases accurate features.

The South Kensington Museum gives the clearest demonstration of the life-history of the mosquito and of its importance as a causative factor in malaria and yellow fever.

There are perhaps two dozen hospitals in London where the medical man, hungry with the desire to obtain knowledge of a particular character, can find interesting clinical experience. In some of them I saw several things apart from those we usually find mentioned in our American text-books.

There was some surgery which in my humble opinion was not up to the standard of surgery in this country, but there was on the other hand some excellent work done by skilled surgeons thorough in every detail. In nearly every operation the anesthetic was administered by a skilled anesthetist who devoted his time to this line of work. This I was especially glad to see, for I believe that in many operations the anesthesia is

as important as the operation itself. As a general anesthetic chloroform was most frequently used.

Ethel chloride by inhalation was more frequently used than nitrous oxide gas for short surgical operations—such as tonsil and adenoid operations. For local anesthesia cocaine and eucain were most frequently used. Eucain was especially preferred for minor operations on the eye, because it does not dilate the pupil and interfere with vision afterwards and because it is believed to be less poisonous than cocaine.

Nearly all mastoid surgery was of the radical kind. Nasal accessory sinus diseases were being treated every way from simple palliative measures to the most radical operations.

Another point that is not usually noted in our American text-books is that corneal and conjunctival anesthesia is invariably looked for as a symptom of cerebro-spinal meningitis in the English hospitals.

HERNIA.*

By J. C. HARRIS, M. D.
Anderson, S. C.

The chapter of surgical history regarding hernia was begun by Celsus about the beginning of the Christian era, and was practically finished some years ago by Bassini and Halstead after the advent of the Lister method of the treatment of wounds. A period of nearly two thousand years has elapsed, and strange to say that the fundamental principles of Celsus and the other two great leaders of modern surgery are nearly the same. Celsus picked his operative cases. He would only operate

*Read before the Fourth District Medical Association, Seneca, S. C., Jan. 25, 1909.

on the unstrangulated cases of the young males, from the ages of six to fourteen, in good health, and with no very large hernia.

Of the many varieties of hernia I will mention but three. These three varieties will absorb about 95 per cent. of the cases met by the modern country practitioner, namely: the two inguinal and the femoral. The oblique or indirect inguinal will fall heir to seventy per cent of these, and the direct inguinal and femoral will share about equally of the remainder.

The cause of hernia is an anatomical weakness or an acquired trouble, or both. The weak points of the lower abdominal walls are the inguinal canal and the saphenous opening. The former is made more weak by the passage of the spermatic cord and vessels; the latter by the saphenous vein. I may add that the indirect inguinal hernia is often congenital. The two other varieties are acquired and are rarely, if ever, found in children under the age of five years. Men are more liable to hernia than women, in the proportion of 3 to 1, owing to occupation.

The treatment of hernia naturally divides itself into the strangulated and the unstrangulated. The symptoms of strangulated hernia are not unlike any other obstruction of the bowels in the acute form. Symptoms that denote shock, pulse rapid and without force, skin cold and covered with a cold, clammy perspiration, especially if the constriction is tight from almost the very beginning of the accident; this, accompanied with severe pain over the entire abdomen, and the existence of a known hernia previous, gives a pretty clear picture of strangulated hernia. It is the small hernia of the femoral variety in the very fat patients that gives the most

trouble in diagnosis. I may add also that it is the small loop of bowel that becomes more readily strangulated. There are but two organs—the stomach and the pancreas—of the abdominal cavity that may not be found in the hernial sac.

Inasmuch as strangulation is due to an impaction of a loop of bowel below the constriction of one of the rings, making an impediment to the return of the venous blood as well as an impediment to arterial blood for the nourishment of the bowel, it becomes dangerous and must be liberated. The longer the strangulation stands the greater the mortality will be. To temporize is impossible with any degree of safety to the patient.

It is time to get busy when, after a very moderate amount of taxis, the application of an ice bag to the hernial sac, and the extreme position of Trendelenberg with a relaxant drug pushed to the full extent, no reduction has been accomplished. Then the sooner an operation is done the better the result will be, as the rate of mortality depends upon the length of time the strangulation has existed.

One interesting point I would like to mention in regard to strangulated hernia, and that is that surgical text books never refer to strangulation in infants. That is due to the rarity of the accident. And yet it does occur, as I had one patient that I had to operate on the second time before it was two years old—at eleven and twenty-two months respectively. The first operation I made no attempt at a radical cure; the second one I did with a good result.

In all cases of operative strangulated hernia effort should be directed to the radical cure as this adds little or nothing to the mortality of the previous operative steps.

Special hernia, or the treatment of

the unstrangulated reducible hernia of either variety should be looked upon with much more favor than it is. To go through life handicapped with a truss, even well fitted, is a pretty fierce proposition. The question arises then, should we operate on such cases for a radical cure. My position is in the affirmative. The next question that would arise would be the age limit. According to Dr. Bull, of New York, "the best results are gotten in childhood and youth." Extreme age is as a rule a contraindication. An operation should not be resorted to in persons under four nor over fifty years of age unless special indications exist. In some cases the truss or the mechanical appliances will not keep the bowels up; and here the age limit should not be adhered to so closely. My last patient was an example of this. He was fifty-six years of age and was unable to get a truss that would hold the bowels up. A good result was gotten.

Having decided to do a radical cure of hernia, many modern methods have been devised. The Bassini and Halstead operations are ideal in my humble estimation, and they are, in short form, a high ligature of the sac and suture of the canal after displacement of the cord. The description and technique of the Bassini is so near the same as the Halstead that one will do for the other, with the slight difference in the ligation of the veins of the cord and transplanting of the cord so that it lies external rather than internal to the aponeurosis of the external oblique muscle; and the use of the mattress suture.

The Bassini and Halstead operations are intended for and commonly known as the operation for the inguinal varieties, but Bassini devised an operation for femoral hernia which has given perfect results. This is the simplest of all va-

rieties of hernia. The sac is dissected free from the canal and ligated as high up as possible. With a curved needle armed with silk, sutures are inserted so as to unite Poupart's ligament with the pectineal fascia, commencing near the spine of the pubes. Stitches should be placed not more than one quarter of an inch apart until the canal is completely closed. Care should be taken not to wound the veins in this region—the femoral and saphenous.

The suture material used in these operations should be silkworm gut or catgut. Good results are gotten from either one of these varieties properly used and of good quality.

The meeting in Summerville, April 20-22, next, will be the biggest and best ever held by our state association. There is not a doctor in the state who can afford to absent himself.

DIABETES MELLITUS WITH SPECIAL REFERENCE TO TREATMENT.*

By J. L. JEFFERIES, M. D.,
Spartanburg, S. C.

It is not the intent of this paper to deal with every detail connected with our present knowledge of the treatment of diabetes mellitus, or to present anything new or original, but to state in brief some of the data and principles of treatment already worked out, in so far as these may be put into use by the general practitioner. The cases most frequently met with by us are among the aged, and among persons past middle life who are of a plethoric and gouty diathesis and who, as well as the aged, are sufferers of arterial sclerosis. On the

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other hand, we occasionally meet with cases among children and young adults, in whom we find no apparent cause for the existence of this disease, other than that which scientific observers please to call "faulty metabolism" of the cells concerned in the conversion of sugar into glycogen, or in the metabolism of the muscles. This so called "faulty metabolism" is said to be hereditary in no less than 30 per cent. of all cases of diabetes mellitus, whether young or old, and when aided by other causes productive of this disease give us the most severe cases with which we have to deal. Some of these causes find their origin in the disease of some special organ, notably; (1) the pancreas, but may be due to (2) diseases of the liver (cirrhosis especially), (3) diseases of the brain and nervous system (brain syphilis and brain injuries), (4) diseased thyroid gland.

In two of my cases I have found albumin in the urine and have been under the impression for a long time, and until quite recently, that interstitial nephritis was a cause in the production of acquired diabetes mellitus and vice versa. In the light of our present knowledge, however, this opinion has no foundation in fact; for to quote the exact words of an eminent authority, "What is found at the autopsy is the large, slightly hyperemic, 'diabetic kidney,' which shows none of the changes that we expect to find in nephritis." "The transition of diabetes into nephritis, which is frequently mentioned, is, therefore, very questionable, the true diabetic albuminuria of severe cases is not nephritic, and the albuminuria of the mild cases is not diabetic, but frequently due to an independent nephritis." I have digressed somewhat to speak of this connection, or supposed connection, of nephritis with

diabetes mellitus, because it is my opinion that many physicians are laboring under the same impression, namely: that the one is the cause of the other and the reverse, when their appearance in the same subject is coincident only.

In this brief summary enough mention of the supposed nature and causes of diabetes mellitus has been made for the requirements of this paper, my purpose being to show by observations based upon actual experience in the treatment of a number (twelve in all) of cases of this disease, within a period of twelve years, that any case, except the very severe ones, which nothing seems to relieve, may be helped and improved (not cured) by judicious treatment applied by any physician, provided that physician takes an interest in these cases and goes about their treatment with concern for their welfare and his own reputation. Let me say here that my opportunities for carrying out in detail accurate plans of treatment have been in nearly all the cases (three excepted) extremely limited; my patients, for the most part, having been poor people who had neither the means nor the time to employ costly medical advice, or to place themselves under rigid rules of diet and hygiene.

To the general practitioner, as it occurs to me, the whole subject of treatment resolves itself into three kinds: (1) What may be done; (2) what is easily done; (3) what usually is done.

Let us speak first of what is usually done. Even when the diagnosis of glycosuria is made and the patient is found to be suffering with no complications, by many physicians his case is usually assigned to that class of incurables which go from one medical man to another without obtaining relief from any. Often dismissed with some general

instructions like these: "Do not eat sugar, nor anything that contains starches or sugars, keep the bowels well open and take these prescriptions to the drug store and have them filled," (commonly codeine or morphine, so much per dose, four times a day, and liquor potassae arsenitis, five drops t. i. d. after meals) "and let me see you again." All this in such a manner as to make the patient himself feel, as we do, that the advice is merely routine and has for its basis nothing hopeful nor encouraging. In this way many of the mild cases go on, it may be for years, until some acute complication, or some chronic intercurrent disease ends their existence. The severe cases, especially among the poor, readily succumb to lung and other complicating diseases.

Could not the general practitioner, although not capable of doing all that may be done for these patients, do with ease much more than is usually done? Would it not be better for his own reputation, and for the sake of right itself, to go over these cases carefully time and again, be enthusiastic and in earnest, find out everything possible, even if there be no money in it, and when his best is done and he has elicited all the facts within his power to aid him in his treatment, would he not do himself more credit to take the matter of treatment, so far as possible, into his own hands and see that it is carried out in detail? Once the patient finds that you are studying his case earnestly and interestedly he becomes interested in you, and, when this is so, will usually follow instructions. It is better to say to the diabetic something like this: "My dear sir, I trust your case is not a hopeless one; many persons with this trouble live out the three score and ten years allotted us; if you do as directed there is good

reason to believe that you may do the same." In this the physician makes no promise but inspires hope and creates a feeling of confidence and willingness to co-operate with him on the patient's part, which will be of incalculable value in the subsequent management of the case.

True, "it may be done" but it is not easy to go into a thorough analysis of the blood and urine, as is done by specialists and in hospital work, where chemical laboratories are of easy access and accuracy in every detail of treatment may be obtained by chemists and pathologists. The general practitioner can hardly be expected to estimate, even roughly, how much sugar is excreted per diem and tell exactly what percentage of food values have been lost by the loss of sugar; this may be done in the laboratory but takes time and equipment. Very few of us know clearly what food values expressed in terms of caloric (the amount of heat necessary to raise one kilogram, 2 1-5 lbs., water one degree centigrade) mean, nor do we have any assurance that the average man or woman would be able, if left to himself or herself, in private practice to do precisely as we direct, even if he or she should try. We are told by the books that a patient weighing, say, 150 pounds, requires for the 24 hours about 30-35 calories of energy from his diet for every 2 1-5 lbs., which makes a total value of 2380 calories for the 150 pounds in the 24 hours. Now, knowing the food requirements of a person of given weight in health, together with the loss sustained by the exact percentage of sugar excreted within 24 hours, we may be able to tell by estimating in terms of calories the energy lost by the sugar excreted, and adding this loss to the caloric requirements of the person in health, find

the exact amount of calories required in the food make up of our diabetic patient. By carefully prepared tables we may also estimate the caloric value of each article of food by the percentage of its chemical constituents—taking into account the personal equation of each patient, which is variable, this is not easy to adjust, even by the specialist, much less by the general practitioner, who must rely on methods, perhaps less accurate, but who may easily do the following with promise of good results:

Give the patient a diet list carefully drawn off (preferably a printed list) of such foods as he may take and such foods as he must omit from his diet. Give quantities for each meal of each article, if practicable. These lists and the tables for calculating food values may be found in most modern text books on the practice of medicine, and for this reason I have omitted them from this paper. Enjoin upon him that he must not omit too suddenly all starchy foods, underscoring these in your list; then the drugs to be used are easily prescribed to suit his individual case and your directions readily carried out. Even among the poor and the ignorant, these may be carried out to a greater degree of accuracy than most of us could expect to attain, provided we have secured the confidence and the interest of the patient.

Take for example the case of a negro man, J. A. B., who applied to me three years ago for relief of dyspeptic symptoms and constipation. His description of thirst, dry tongue, urticaria, constipation, despondency, etc., led me to make an immediate examination of the urine, which revealed sugar in abundance: he had not been able to do any work for sometime. The case interested me and my examination was made as

thorough as possible in order to exclude complications. I found nothing to indicate syphilis nor tuberculosis, so my treatment was begun on dietetic lines principally, medicines being used secondarily. After stating to him his trouble and the improbability of relief being obtained without rigidly following directions, I got his consent to give my plan a trial. I did nothing more than give him a printed slip of that which he must eat and that which he must not eat. He and his wife were intelligent and thrifty enough to get many (all needful) articles of diet and to use them just as directed, namely, breakfast: Cup of coffee or tea with tablespoonful of cream, one-fourth pound of bacon with an egg, one and one-half ounces of Graham bread; dinner: Two soft boiled eggs, with vegetables, one-fourth pound of meat, any kind, with sauce, bread and butter one and one-half ounces, one-half pint sweet milk, water, q. s; supper: One egg, meat soups, one-quarter pound steak, one and one-half ounces of bread and butter, half-pint of milk.

This list obtained from a text book has been varied, of course, and increased from time to time from the articles allowed in the printed list given him, and can be secured by most any patient. As a matter of fact I did no weighing or measuring but directed the patient so to do at the beginning, and subsequently his knowledge enabled him to keep up the diet with a fair degree of accuracy. For the constipation I prescribed the *mistura ferri acida t. i. d.* in one-half ounce doses with an occasional dose of Carlsbad salts. As I said before, I have done no weighing nor measuring nor used any test meals at any time, but my man improved and is now at work on full time and is, when he adheres to the

diet, practically free from any of the uncomfortable symptoms.

Case number two: Mulatto, man, aged 48, carpenter by trade, with some education and rather above the average negro in intelligence. Gave me accurate history of gradually increasing polyuria, dyspepsia, dry tongue, extreme thirst, which water did not seem to satisfy, could eat little of anything at a time, had lost much of his weight. These symptoms gave me the hint and I examined his urine, which revealed the trouble, as I then thought (April, 1906) to be a severe case of diabetes mellitus. He was immediately put upon a dietetic and medicinal treatment. In his case he seemed to be able to eat little of the prescribed diet which was not accurately weighed and measured, but which I knew was far below his bodily need. As I now recall the case, meat soup, eggs and milk, with some gluten bread, were taken in quantities far too small to maintain his strength. I prescribed Carlsbad salts night and morning when needed for constipation, and gave Basham's mixture with Fowler's solution as a tonic and alterative treatment. His symptoms gradually improved and with this improvement his power to digest food also improved. He began to eat and digest foods which were allowed him in greater quantities and with better results, and when I last saw him a year ago he was at work and comfortable, so long as he adhered within certain limits to the diet. At first my hope of giving this man relief was not sanguine, as I had feared tuberculosis as a complication, but up to the time I saw him last he had not developed this trouble, was in good spirits and was free from uncomfortable symptoms. When I last examined this patient's urine it was not sugar free, but the amount of urine

passed per diem was less than at first, and the gravity about a thousand and twenty-five.

Case number three: Mrs. G. consulted me in 1903—lady in best circumstances; came to me, diagnosis made; has been suffering since about her fiftieth year, now sixty-two, but did not know trouble until six years ago, when a physician whom she had consulted for bladder trouble diagnosed diabetes mellitus and had given some general directions as to diet and drugs, but without any special lines being laid down. My examination revealed the fact that this patient, then five years ago, was suffering with arterial sclerosis and gave a history of hereditary tendency to diabetes. She was given full and accurate directions as to the avoidance of starches and sugars and was rather limited in her diet at first as to the articles of food allowed, but was permitted to eat two slices of whole wheat bread t. i. d. and was never subjected to any test diet in order to render her sugar free, for although it was in my power to treat this patient purely on scientific principles, viz. by the test diet laid down in the books and by reducing the starches and sugars, thus render her sugar free, and then by the addition of bread or other carbohydrates learn exactly what her capacity for carbohydrates is or was, I was afraid to do this, and am still afraid, for the reason that she had an apoplectic stroke, which left her paralysed in the whole right side. Anything that would be likely to bring about a diabetic coma—such as a too limited amount of carbohydrates would likely do—has been scrupulously avoided by me, I having been content to relieve the troublesome symptoms of thirst, pruritus, cystitis and dry throat and tongue by the methods above named and still

to allow her to remain not sugar free, but comfortable and hopeful, as she now is today.

Note: Diabetic coma due to acids in the urine may be prevented by the use of sodium bicarbonate in doses sufficient to render the urine alkaline—usually one dram dissolved in water t. i. d. is sufficient but much larger quantities than this are necessary in some cases. No especial mention has been made in this paper so far as to the use of alkalies in the treatment of this acid condition known as "acidosis" (Tyson-Naunyn) for the reason that I have not known until recently of their value, nor indeed of the danger of these acids which is often greatly increased by the too sudden removal of starches and sugars from the dietary. It will be noted that I have used the alkaline salts (Carlsbad, especially) freely in all these cases, but only from an empirical knowledge of their beneficial effects. In the future I shall not only examine the urine for sugar, but shall also examine it for diacetic acid, and add to my treatment the sodium bicarbonate or other alkalies suitable to neutralize these dangerous acid products, impressing upon the patient in the very beginning the importance of this part of the treatment.

Case number four: Like the above case, this lady, now fifty-eight years old, consulted me three years ago, with fairly good history, with plethoric appearance and seemingly in good health and with diagnosis made. Consulted me for pruritus and for nettlerash and an eczema, from which she had suffered a great deal. Up to the time she consulted me she had received little treatment and had not been benefitted by the treatment she had received. From the impression she had of her malady she was sceptical as to any good results of treatment, being rather resigned to her fate. She was willing, however, to try the plans of treatment laid down by me although she admits that she has not scrupulously carried them out at all times, but recently during November, 1908, when I last saw her, her reports were more encouraging than before treatment was instituted and she finds that in order to be free from pruritus and dis-

comfort generally she must keep up with the diet and drugs along the lines indicated. So far I have been unable to reduce the quantity of sugar in this case to where there are not some uncomfortable symptoms at times, but the patient is so far without any complications other than arterial sclerosis and her present condition is now, and has been since proper treatment was instituted, decidedly tolerable, if not entirely comfortable.

I might extend this paper by adding the reports of some or all the other cases which I have treated within the last twelve years, but it is already too lengthy, nor shall I enter into further details as to treatment either dietetic or medicinal as this may all be found in any good work on the practice of medicine; my object in making these observations, imperfect as they are, being to demonstrate that (1) the diagnosis can often be made from subjective symptoms alone, and (2) that an analysis of the urine should not be omitted when patients complain of thirst and dry tongue with pruritic symptoms and polyuria; (3) that the general practitioner with few advantages and laboring under many difficulties may accomplish good results in the treatment of this difficult-to-manage and incurable disease.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

It is not too early to begin to lay your plans for attending the annual meeting of the state association at Summerville, April 21 and 22, next. House of Delegates convenes April 20.

Address

THE MAYO CLINIC AT ROCHESTER MINNESOTA.*

By S. C. BAKER, M. D.,
Sumter, S. C.

Mr. President and Gentlemen:

You have arranged for this meeting a "Symposium on Medical Progress and Post Graduate Instruction" and have assigned to me the subject "American Surgeons and Surgery," a noble theme truly, but one which could not be fully and properly treated in the time allotted to me, I think.

For a number of years I have made it a rule to visit some one of the hospitals and surgical clinics of the North or West for a few weeks of each year for the purpose of "brushing up", and at various times I have attended those in Baltimore, Philadelphia, New York, Nashville, Louisville, Chicago and Rochester, Minnesota. But there has intervened a period of some fifteen years between the first and last of my visits, and there have been such advances in surgery and in teaching methods, that I feel that any thing that would savor of comparison as to men or methods would be unfair to them and ungenerous in me.

As to this method of obtaining instruction (of keeping abreast of the times) I unhesitatingly say that it is almost the only way to gain a working knowledge of new and improved methods in surgical procedure, and it will well repay any man for the time and money expended. It is a duty he owes to his clientele as well as to himself, and it is one of the pleasantest ways of taking and spending a vacation.

In a general way I will say that the surgeons in the East seem to run more to specialism, one man operating upon the eye, or upon the ear, nose and throat, another doing abdominal work, another brain, another rectal or genito-urinary, and another gynecological, etc., so that, to get them all, a man must go from one hospital to another and at special hours, and so lose much valuable time. In the West, on the other hand, the larger number of the men,

at least those of whom we hear most (such men as the Mayos and the Ochsners, for example) do every thing that comes their way, of a surgical nature, that may happen to a man between the crown of his head and the sole of his foot. So that for a man seeking post graduate instruction in surgery, if he is intending to take up a special line of work, he cannot go amiss by visiting one of the Eastern cities. But for the average South Carolina surgeon who has but little time each year, and to whom every minute, and most times every cent counts, and who does not expect to limit himself to a special field or surgery, but is glad to do anything and everything that he gets a chance at, the West is the place for him. I have most recently paid a visit to the clinic of the Mayo brothers in Rochester, Minnesota, and their methods are freshest in my mind, and if you will pardon my narrowing the subject to a description of that experience, I shall be glad to do so.

After attending the meeting of the A. M. A. in Chicago last June, being attracted by the fame of their wonderful system of diagnosis, and of their brilliant operative work, which was in the mouth of every medical man I met, I, in company with Drs. Cheyne, of Sumter, and Cathcart and Baker, of Charleston, went on up to Rochester, which is some 350 miles (a night's ride) beyond Chicago. Rochester is a place of about 7,000 inhabitants, and is situated in a beautiful rolling country with every square yard of hill and valley carpeted with the greenest of green grass, a most restful sight after the smoke and glare of Chicago. The atmosphere was bracing and invigorating in the extreme. You may wonder, as I still do, how so small a place could produce and retain such noted surgeons as the Mayos, and it does not take you long to conclude that, aside from the climate, which at that season is unrivaled, and doubtless has much to do with the phenomenally rapid recoveries made by the patients, that the Mayos are "the whole push," for practically the Mayos have made the town and supply its business. The station is nearly a mile from the hotel. There are no street cars but a good hack service, which the Mayo patients and their friends and the visiting doctors support. The hotel, the "Cook House", which is well kept and daintily

*Read before the Fourth District Med. Asso., at Seneca, Jan. 25, 1909.

served by ruddy-cheeked white waitresses (a novelty to a Southerner) is supported by the Mayo clientele of waiting patients and visiting M. D.'s., and the hospital (Saint Mary's, an institution owned and managed by a Catholic sisterhood) is entirely devoted to and supported by the Mayo patronage. It is situated on rising ground on the edge of the town, away from its noise and bustle, and commands for its inmates a beautiful view of the surrounding country.

The operations begin at the hospital at 8 o'clock in the morning, and run until all the cases set for the day are completed, usually about 1.30 o'clock, that is, in good time for the 2 o'clock dinner hour. There are ordinarily from 20 to 25 operations each day. The operating rooms are situated on the top floor where sky- and side-light is adequate. They are two in number, one for each of the Drs. Mayo. Between the two rooms and opening into them is the sterilizing room where the instruments, sutures and dressings are prepared. Just outside of the operating suite is a waiting room for the visitors to the clinic. Any qualified physician or graduate nurse is permitted to attend without charge. A registry book is kept here and each visitor is expected to enter his name. On its pages are seen the signatures of men of the highest reputation not only in this country but abroad. The only demands made are that reasonable quiet and decorum be observed while waiting and in entering and retiring from the operating rooms.

As far as possible the aim seems to be to have an operation going on in one room while the patient and operators are preparing in the other. As soon as an operation is completed the visitors file out into the waiting room and remain until an electric buzzer on the wall sound to announce that the next patient is ready and that the visitors may enter. The method of introduction, final preparation, and anesthetizing the patients was a novel one to me. The patient went into the operating room with practically all of his clothing on, generally he walked in, but if not able he was wheeled in. He was put upon the operating table and strapped down and while the ether was being given so much of the clothing as was necessary was removed and the site of the operation washed with warm

water and Jumbo soap (a kind of hand sapolio) followed with a solution of 1 to 2000 bichloride, after which a guaze sponge wet with Harrington's solution is spread over the surface for thirty seconds, which is then washed off with alcohol. They explain that the removal of clothing, etc., and the bustling about distracts the patient's attention from himself and he takes the ether better. It also consumes less of the time of the attendants where the fewest number compatible with safety are used and where every moment counts.

As to the preliminary preparation of the patient, he generally enters the hospital the day before the operation and is allowed a regular diet. The night before the operation the patient is bathed, shaved and given a St. Mary's cocktail (two ounces of castor oil in a little beer). No food or drink is given the morning of the operation, and before going to the operating room he puts on a fresh, clean suit of his own under clothing and some of his top clothes.

Only thoroughly trained assistants are employed in the operating rooms. The anesthetist in Dr. Charles Mayo's room, Miss Henderson, a graduate nurse, has been on duty for a number of years and has given many thousands of anesthesias and the one in Dr. William Mayo's room, a sister of the hospital community, has served for an equal period, I believe. Women are preferred by the Mayos, since not being doctors, they do not allow themselves to become engrossed in the operation going on, but concentrate their attention on their own duties. Ether is the anesthetic employed and it is administered by the drop method on a large mask similar to an Esmarck's chloroform inhaler. Dr. Judd, Dr. Charles Mayo's first assistant, has occupied that position for five or six years, and receives a handsome salary I was told. In the absence of either of the Mayos he takes their place. Dr. William Mayo's regular first assistant is Sister Mary Joseph, the superintendent of the hospital. There is no hurry about anything during an operation, every thing is as quiet and undemonstrative as possible but moves with the precision of clock-work, and their astonishing numbers of operations are pulled off each fore-noon without apparent effort.

There are ranged on two sides of the

operating rooms stepped stands of iron piping for the spectators to perch upon. As soon as the visiting doctors have found their places one of the assistants reads a brief history of the case and the operator then begins. During the whole course of their work both Mayos keep up a running fire of comment upon the nature of the affection in hand, touching frequently upon the embryology and histology of the organ affected and the part they play in the development of the present condition. The physiology and pathology are described, and the surgical landmarks and other anatomical points demonstrated as they arise in the course of operation. Their diagnosis of the case has of course already been announced and they seem as anxious as you will be, to see that the actual findings of some obscure intra-abdominal trouble, for instance, turns out to be what was predicted. They give you their prognosis in the form of percentages of recovery based upon the results obtained in their own vast experience. They discuss with you the rationale of their procedure, and the different methods employed by different operators, and why the particular one employed in a given case is deemed best, and all interspersed with reminiscence and anecdote suggested by the case, of unforeseen ill or happy results to himself or other operators or to the patient concerned. It is well nigh impossible to conceive how such an almost uninterrupted flow of talk bearing often upon the most intricate scientific points can go on without hitch while the eye is fast upon the subject and instruments and fingers are deftly playing among the very mainsprings of life and yet it is so and done too, in an off-hand, yet convincing way, that does not in the least savor of pedantry or posing. Any question pertinent to the subject in hand put by an onlooker is most courteously and pleasantly answered and explained.

At three o'clock each afternoon when the visitors have had their dinner and rested for a short time they assemble in the hall, a short distance from the hotel, of the "Rochester Surgeons' Club." Every visiting physician is supposed to become a member of the club, and he would be a very great loser if he did not do so. All that he has to do is to prove himself a member

in good standing in the profession, when he will be elected. A fee of two dollars per annum, as dues, is charged, or you may pay down five dollars at once and become a life member. The money thus collected is used to pay hall rent, and for heat, light, stationery and other necessary expenses. The object of the club is to review and discuss the operations of the morning and to keep track of the cases operated upon from day to day. Its officers are a president vice-president and a secretary who serve for one week. At the close of each meeting the president appoints two "reporters" as they are called who shall take notes on the following morning of all the operations going on in the two rooms (one reporter being assigned to each room) and of all the comments by each operator, so far as he is able to get them down. When the club reassembles the following afternoon, after the reading of the minutes of the previous day and the transaction of other routine business, each reporter is called upon in turn, and he arises and reads his report, stating the nature of the affection, its clinical history as given, the character of the operation in its several steps, the mode of dressing and the proposed after-care, together with all comments by the operator. If there is a man present who does not understand every single step in any operation or theory as it is reported it is his privilege to ask about it, and it is the reporter's duty to explain it as he saw it. If the explanation does not coincide with the views of those present there is a free discussion and the matter does not rest until all doubt is cleared up, even though it should require that a committee be sent down to the offices of the Drs. Mayo, which are on the lower floor of the same building, and they either give the explanation to the committee or sometimes come up into the hall themselves and explain the matter at first hand. So it is a man's own fault if he does not understand everything that goes on.

Twice a week a committee is appointed to visit the hospital wards and report upon the progress of patients seen previously upon the operating table. The mode of after-treatment is also inquired into and described.

Among the visitors to these clinics and to

the Surgeon's Club are many of the most noted surgeons of the world. Kocher, of Berne, and the surgeon general of the Japanese army were there last year, and many German, French and English surgeons go there. There was a German surgeon of international reputation there while I was in Rochester, and many men prominent as specialists from all over the country go there constantly. One of these is frequently requested to address the club at a given time on some special subject. Dr. Bransford Lewis, of St. Louis, a prominent genito-urinary surgeon, and inventor of the excellent cystoscope that bears his name, was there and gave us a most interesting talk upon cystoscopy and catheterization of the ureters and demonstrated his instrument. He was afterwards elected an honorary member of the club.

The offices and consultation rooms of the Mayo brothers, as before stated, occupy the first floor of the building in which the Surgeons' Club holds its meetings. Through the building runs a broad passage-way with rooms opening on to it from either side. On any afternoon this passage will be found lined with patients awaiting their turns to be examined and accommodated. In these rooms the history of the patient is taken, his status determined, and his diagnosis made. Each room is occupied by a specialist. Each morning while the Mayos are busy in their operating rooms at the hospital, most of these men are examining and taking stock of the new patients here at the offices. Dr. Christopher Graham (a brother-in-law of the Mayos) is the chief of this department. He and his immediate assistants pass upon the circulatory system, lungs, nervous system, digestive apparatus, etc., all of which is noted upon the history blank and then the patient is passed on perchance to the eye man, or the nose and throat man, or to the cystoscopist; or maybe he must be subjected to the X-ray, or the medical chemist must examine his urine, his stomach contents, or his feces; of the pathologist and bacteriologist must pass upon his blood or sputum, until the patient is thoroughly gone over and, by exclusion or otherwise, a positive or tentative diagnosis made. Such cases as are purely medical are discarded so far as the Mayos and the hospital are concerned. The

others, with all data already ascertained, are submitted to one or both of the Mayos, when they come down in the afternoon, for final judgment, and the nature and date of the operation fixed. A patient may be kept a week or more under observation before a conclusion is finally reached as to his case. Then as soon as a vacancy in the hospital occurs he is entered and the next day, or possibly the day after, is operated upon as previously described. It is said that there are always from 150 to 200 patients in waiting in the hotels and boarding houses of Rochester undergoing observation for diagnosis and a chance to enter the hospital.

The hospital at this time can only accommodate about 150 patients but they are now adding rooms for 75 more. Patients are kept in the hospital a surprisingly short time after operation. A clean appendix case is up in a rolling chair on the second or third day, and goes out at the end of the week, and other cases are kept proportionately long. These do not all go home at once, though many do, but go back to hotel or boarding house where they can be in touch with the Mayos until they feel independent enough to go home and shift for themselves. Dr. Mayo's teaching is that if you lay the patient up one week, it is not possible to restore his blood pressure for another week, and the longer after that you lay him up the longer it takes to restore it. If you lay him up one month, it will take him all summer to get over it. It is therefore an absolute detriment to the patient to lay him up long.

The adjunct of a pathological laboratory immediately in contact with the operating room is a novel feature of the Mayo system which is repeatedly called into service during operations to pass upon the character of tissues or fluids encountered. One of the pathologists is in call at all times, the suspicious specimen is turned over to him and the operative procedure halts for five or six minutes while an examination is being made by a quick method of freezing and staining to determine the nature of the product and the extent or character of operation advisable under the circumstances.

The question is frequently asked "What class of operations do you see in Rochester?" You can see practically every opera-

tion in surgery if you stay long enough. Most of the cases come from a distance and are consequently more or less of a chronic nature. You see very few pus cases, because they cannot travel. The first operation I saw Dr. Charles Mayo do was the removal of a cataract, then he extirpated a lachrymal gland, next he took out an appendix, then an exophthalmic goitre, then a tubercular epididymis, next double bunions, then tonsils and adenoids, followed by a carcinomatous breast, and lastly he did a gall bladder operation. Is not such versatility remarkable? I must say that I have seen right here in South Carolina a cataract operation that seemed to me more brilliantly done than the one by Mayo, and I cannot conceive why a parent should carry her child several hundred miles to Rochester to have its tonsils and adenoids removed, or why a man should go there from Chicago to be circumcised but such is the hold that these men have gained upon the public and such is the glamour that surrounds them in that region that such things are frequently done and it is well for the student that it is so, for tell me a place, if you can, where the postgraduate student can get such a wide range of experience in one hospital and in so short a time.

I give you here a list of operations posted at the Mayo clinic for June 8th last, on which day I served as reporter for Dr. C. H. Mayo's room, that you may get a fair idea of the scope of the work done, and I copy my notes on two or three of the cases to illustrate the nature of the comments by the operator.

Before doing this I will say that their surgical technique is most thoroughly systematized from start to finish, and represents the combined and simplified methods of all the great surgical clinics of the world, enriched with original ideas of their own.

List of Operations by the Mayos, June 8th, 1908.

1. Chronic appendicitis (Judd)
2. Chronic appendicitis (W. J. Mayo)
3. Right inguinal hernia, strangulated on June (Judd).
4. Abdominal hysterectomy for fibroids (W. J. M.)
5. Exophthalmic goitre (C. H. M.)
6. Gall bladder and common duct, inflamed (W. J. M.)
7. Carcinoma of breast (C. H. M.)
8. Pyloric obstruction (W. J. M.)

9. Tumor of left breast (C. H. M.)
10. Complete prolapse of uterus (W. J. M.)
11. Curettage of uterus (C. H. M.)
12. Excision posterior portion of vagina (W. J. M.)
13. Tubercular epididymis, (C. H. M.)
14. Stone in ureter, (W. J. M.)
15. Varicocele and circumcision, (C. H. M.)
16. Acute appendicitis, (W. J. M.)
17. Ligation of superior thyroid arteries, (C. H. M.)
18. Angioma of upper eyelid in a child, (C. H. M.)
19. Removal of lachrymal glands, (C. H. M.)
20. Cancerous gland, (C. H. M.)
21. Curettage of tubercular glands of neck, (C. H. M.)
22. Carcinoma of upper jaw cauterized, (C. H. M.)
23. Cleft palate (C. H. M.)

Notes on Clinic of Dr. C. H. Mayo:

Case of tumor of the breast. The case is of ten or fifteen years standing. The patient is 45 years of age and single.

An incision with scalpel made over the long axis of the tumor and the growth dissected out with scissors. Dr. Mayo said: "I think this is a benign fibroma on account of its mobility and its calcareous feel. We will have it examined by the pathologist, and if malignant will remove the whole breast and the surrounding glands. (Specimen turned over to pathologist). "If I did not have a pathological laboratory convenient, I would pack the wound and leave it open for three or four days till a report could be had. In young women from 15 to 25 the most common form of breast tumor, is the interlobular myxoma. They take care of themselves. In women over 30, 80 per cent. of breast tumors are malignant and the remainder are liable to become so. All tumors of the breast in women over thirty years old should come out. The more completely we can cover in the raw surface with skin the more satisfactory the result. If I could not close in I would burn with carbolic acid, or Harrington's solution." (Harrington's solution is:

Mercuric chloride	3.20 grams
Hydrochloric Acid, C. P.	240.00 grams
Distilled Water.....	1200.00 grams
Alcohol	2560.00 grams

It is said to destroy all forms of pathogenic bacteria in 30 seconds).

The pathologist here reported the growth as benign. The wound was thereupon closed by a deep and cuticular continuous suture of catgut. It was dressed first with a layer of iodine gauze and this overlaid with several thicknesses of plain guaze, and the whole held in place by strips of adhesive plaster—two from side to side and one vertical.

Next case, also tumor of the breast. Patient 56 years old and very stout. She has

had two children, the youngest 17 years of age. "The growth first appeared two years ago. It is located in the upper portion of breast and the overlying skin is slightly dimpled. This tumor is probably malignant. We will try to utilize the Jackson incision. We will also try to save a little of the breast skin from the lower portion for we must sacrifice much of the skin of the chest." The division between the tendons of the large pectoral muscle was found and the tendinous portion next the shoulder cut through, and the fleshy portion turned down by the hand inserted beneath the muscle. The muscle was then dissected off down to the ribs and as far in as the median line. Dr. Mayo said while doing this: "It is not necessary to explore the axillary space first. It depends upon the location of the tumor in a given case how we shall proceed," (dissection has here reached the middle line) "We cut the lesser pectoral muscle now which throws the axillary space wide open." (Following this upward with scissors dissection the sub-clavian vessels were exposed. Not many enlarged glands were seen). "We remove all the glands here, however, for we fear secondary involvement in this case. Some squamous cell types do not need extensive gland removal. We expect swelling of the arm after these operations on account of the impeded lymph return. If the arm does not swell we are apt to have removed too few lymphatics, for the arm and breast lymphatics are on the same trunk. The age of the patient makes a great difference in the prognosis in these cases. Each decade of life after 30 gives better results, for atrophy of the lymphatics is greater the older the patient. In the young it is almost impossible to cure for the lymphatic vessels are too numerous. It has been claimed that when the disease has not reappeared after 3 years that the case may be considered as cured, but this is not true, for after the three years are up one third of the cases will still die of cancer, though 80 per cent, were operated on before axillary glands could be felt. The earlier an operation is performed the better. A poor operation done early is twice as good as a most brilliant operation done later. Sixty per cent. of cancers of the colon die from perforation without gland involvement. The liver is the great lymph gland of the abdomen. Cancer of the alimentary tract can be borne about by ascitic fluid without going through the lymphatics. In closing this skin incision we do it so as to keep the scar out of the axilla, for it is hard to sterilize the skin where sweat glands are numerous. Pull the axillary flap over towards the sternum to see how far it will reach and split the underlying portion of skin along the blood line marked by the oozing from the under surface of the flap. Cases with palpable glands in the neck are not curable. Pig skin disease, which means that all

lymph channels are blocked, don't get cured." (Wound here closed by loose double interrupted catgut sutures, figure of eight type). "A lot of people have cancer and throw it off, just as many people (70 per cent., have tuberculosis and only 10 per cent. die of it. In three years they will be injecting blood for cancer prevention." (Spiral drain put in through stab wound at bottom for use when patient sits up and one at the postaxillary border for drainage when in bed). "The patient will sit up in two days. The arm will be bound to the chest, but the fore arm will be left loose. We wish the wound to heal under motion. She will comb her hair in five days. If the arm is not left loose there will be contraction of muscle and she will have degeneration of the sensory nerves in a few months. Remember that the lymphatic system must be thoroughly removed and that the early operations give the best results." (Dressing used, iodine guaze, nonabsorbent cotton, and broad guaze bandage).

Next case, exophthalmic goitre. The patient a female, 19 years of age. Has had goitre two years. Has been married one year. There has been a rapid increase in the size of the gland. There is marked exophthalmos. She has attacks of vomiting, diarrhoea and sweating. Her feet are swollen. Her heart is dilated. Her pulse is extremely rapid—150 per minute—and weak. She has marked tremor. Incision made on either side of the gland above (somewhat parallel with its upper margin) the lower ends of the incision converging obliquely. Drs. Mayo and Judd operating simultaneously, one on either side. Superior thyroid arteries ligated, the vein being included in the ligature with the artery. Patient is not thoroughly under the anesthetic and is in a semi-recumbent posture. Dr. Mayo said "Young people between 17 and 21 don't stand these operations well. We ligate in three types of cases: (1) Type where symptoms are just beginning. There is some twitching of the eyes, some enlargement of the gland. We ligate because nothing more radical is necessary. (2) This case is of the second type. In the young 25 per cent. get well with, without, or in spite of treatment; 25 per cent. die; 50 per cent. fluctuate. (3) The third type is the recurrent form. The superior thyroid artery is ligated at the top of the gland. It branches into three lower down. The patient might die if I removed this right half of the gland. Ligate now and she will pick up and can be operated on more radically later on if necessary. This case will be up and out in two weeks and will probably come back in six weeks for the radical operation, this is only a preparatory operation. It is not the colloid substance in the gland that does harm. The non-stainable secretion, iodo-thyro-globulin, is what is going into this girl's blood and causing trouble.

I report one other case from my notes for this day because, while a little thing as compared with the others I have just reviewed, it may yet in your hands prove the securing of beauty for many a baby girl and gain for you possibly other more serious cases. It is a case of nevus of the upper lid in a female infant, quite an unsightly deformity. No general anesthetic. An eye shield was fastened upon the lid after a drop of cocaine solution had been put into the eye. The nevus was then frozen by spreading over it with a wooden spatula some carbonic acid snow damped with ether.

Formula for freezing mixture: Get a tank of carbonic acid gas, such as is used with every soda fountain. Loose the stopcock and allow a stream of the gas to escape into a thick woolen stocking or into a sleeve from an old flannel under vest. The rapid escape of the gas which makes its way through the pores of the cloth freezes the gas yet in the stocking into a white mass of carbon dioxide ("carbonic acid snow"). Take this out in a glass and pour on enough ether to make slush ice. This mixture is 280 degrees minus. Apply to the nevus for thirty seconds and it freezes and obliterates the dilated blood vessels. It is fine for groggy blossoms on the nose.

I exhibit to you here a couple of snapshots I was able to take of Dr. W. J. Mayo in the midst of an operation. Most of the spectators are at this time in Dr. Charles Mayo's room.

Mr. President and Gentlemen: I fear I have taxed your patience, but one is liable to forget himself in describing the Mayos and their work. I thank you for your attention and for the pleasure of meeting with the Fourth District Association. In conclusion let me say that for those of you who may wish to make the pilgrimage to Rochester, I can not conceive, all told, of any clinic more complete or more admirably adapted for surgical teaching than the Mayo clinic, and I challenge any place to furnish a greater variety of material. In addition to this, for those who wish to work, remember that Rochester is not a large city with its many distractions and dissipations, but that there is nothing to do but see surgery in the mornings, and talk it in the afternoons, and possibly drink a few glasses of Schuster beer at night while some choice raconteur holds the floor.

It is not too early to begin to lay your plans for attending the annual meeting of the state association at Summerville, April 21 and 22, next. House of Delegates convenes April 20.

Personal

Dr. W. E. Goddard, formerly of Laurens county, has removed to Sandy Springs, Anderson county.

Dr. Robt. W. Gibbes, of Columbia, will spend some time this summer in the clinics and laboratories of Vienna.

Dr. Marcus B. Heyman, physician at Central Islip hospital, a New York State institution, has been in Chester this week on a visit to relatives. For several years Dr. Heyman was the efficient assistant to Dr. J. W. Babcock of the South Carolina State hospital.

Dr. O. B. Mayer, of Newberry, chairman of the board of councilors, attended a joint meeting of the Saluda and Edgefield county medical societies, at Johnston, on March 9th, and on the evening of the same day read an address before an antituberculosis meeting in Edgefield.

Dr. Sam Orr, of Anderson, one of the best known and most beloved of the physicians and the people in upper South Carolina, is at the time of this writing, said to be lying desperately ill in a hospital in Baltimore. Thousands of hearts are murmuring prayers for his recovery.

Dr. S. F. Blakely, of Ora, and now president of the Laurens County Medical Society, has announced his intention of moving to Spartanburg in the near future.

Dr. C. B. McKeown, of Fort Lawn, is improving from a slight stroke of paralysis, sustained several weeks ago.

Miss Cora J. Welker, of Tamaqua, Pa., and recently head nurse at the Hillcrest Surgical Hospital, has assumed charge of the new Knowlton Hospital in Columbia. Miss Welker is an accomplished and charming woman, and a member of the Pennsylvania Alumni Association of Graduate Nurses.

Dr. J. W. Jervey, of Greenville, will soon have in operation a free eye, ear, throat and nose clinic in that city, under the auspices of the Salvation Army, which is doing such a great work in the Piedmont Section. The means for the equipment of the institution have been provided by private

subscription in the most gratifying circumstances.

Dr. S. F. Blakely, formerly of Ora, but recently removed to Spartanburg, is one of the best known physicians of Laurens County, being a charter member of that county's medical society, and being its president at the time of his removal. It was painful for him to break the old ties, and especially as he believes the Laurens county society one of the best in the state under the new regime.

Friends in Waterloo of Dr. W. K. Fishburne, of Pinopolis, will be glad to learn that the injury which at first threatened his eyesight is not necessarily fatal. A couple of weeks ago, while preparing to have his horse shod by the man about his home place, Dr. Fishburne was hammering a piece of iron on an anvil, when a shiver from the iron flew off and struck him in one eye. After a local examination he went to Philadelphia for examination, when an X-Ray test was applied and the foreign substance located in the eyeball. It has been removed and reports from Dr. Fishburne are to the effect that he is getting along nicely.

—Colleton News.

County Societies

AIKEN.

The regular monthly meeting of the Aiken County Medical Society was held at Aiken on Monday, March 1st. The topic for discussion was "The Management of Labor, Including Gestation." This was carried over from the last meeting because the leaders of the discussion were absent. This subject was handled in a very excellent paper by Dr. W. A. Whitlock. The other appointee was unfortunately called away just before the meeting. The topic brought forth an abundance of talk, though very little difference of opinion was developed. This meeting was well attended and every member present, save three, talked at least once, and several talked beyond the limit set by the by-laws, which permit only five minutes, though this time may be divided into two periods if desired. The society is doing very nicely though there are some

who are not standing by the brethren as they once did. These do not attend the meetings as it seems to the officers that they should. It is earnestly hoped by the present officers that this may be a record making year in the history of this society. We are looking forward to the Summerville meeting. It is hoped that a large number will go from Aiken and that the meeting will be a large and enthusiastic one. With best wishes for the Journal and its Editor. We have spoken for an address by Dr. McCormack.—Theo. A. Quattlebaum, M. D., Sec'y.

DORCHESTER.

The regular monthly meeting of the Dorchester County Medical Association was held in Summerville, on the evening of Monday, March 1st, with the following attendance: Drs. F. Julian Carroll, J. L. B. Gilmore, W. F. Graham, J. B. Johnson, H. B. Lee, W. P. Shuler, Edmund W. Simons, and Elias D. Tupper.

Dr. Julius A. Parker, the essayist, was unfortunately absent, being called, as he expressed it, by wire, "to sticks," just at "train time," but Dr. Shuler, the alternate, was equal to the occasion and had a paper ready, "Passing of Alcohol," in which he drew attention to the infrequent use of alcohol as compared to a few years ago, in treatment.

Entertainment for Annual Meeting.

Dr. Carroll, from the committee on entertainment, reported program that had been arranged for the meeting of State Association in April. They propose a reception on the 21st, a "Tea Talk" by Dr. Shepard at his beautiful gardens on the afternoon of the 22nd, and a "Smoker" at the Pine Forest Inn on the evening of the same day. The committee will send direct a report in detail to the Journal in time for publication in the March issue. (But it did not.—Ed.)

The next meeting will be at Holly Hill, on Monday, April 5th, at 2 p. m., Dr. Parker being essayist, and Dr. Horger alternate.

Revising Black List.

All members wishing to revise their "Black Lists" are requested to send corrections and additions to the secretary at the earliest moment.—Edmund W. Simons, M. D., Secretary.

HAMPTON.

This secretary has noticed the knocks that you have been giving the various secretaries through the last few months, and hopes in the future to be able to improve his record of the past, and to that end he begs to report that this society held its meeting on the 24th of February for the purpose of electing new officers. The roster for 1909 is as follows: For president, Dr. T. B. Whatley, of Early Branch, S. C., vice-president Dr. J. W. Mole, Jr., Brunson, S. C., secretary Dr. C. A. Rush, Hampton, S. C. Our society has dwindled down to the following membership: Dr. Whatley, Dr. Mole, Dr. Rush, Dr. J. L. Folk, M. B. Munson, J. W. Colson, E. C. B. Mole and Dr. Southward Smith, (Honorary).

Troubles of a Good Secretary.

The editor is respectfully advised that a live secretary does not necessarily constitute a live association, inasmuch as he is not always it. The secretary may call a meeting and be prepared in other ways to have a meeting, but he cannot make the members attend. In the rural districts there are always good and sufficient excuses for not attending a meeting, the weather and the roads and a good many other conditions frequently prevent the attendance of members who really would desire to come. However, as stated before, this secretary will make an effort to improve his record of the past by reporting work to the Journal as it is done.

Our society usually meets on the third Wednesday of the month, except during the hot summer months. The next meeting of this society will take place on the 24th instant, at which meeting we expect a visit from our councilor, Dr. J. T. Taylor, of Adams Run, S. C. The secretary hopes this visit will have the effect of making the members take more interest in the society than they have heretofore.—C. A. Rush, M. D., Sec'y.

KERSHAW.

At a meeting of the Kershaw County Society held in February, the following officers were elected: President, S. C. Zemp, Camden; vice-president, S. F. Brasington, Camden; secretary and treasurer, J. W. Corbett, Camden; delegate, W. J. Burdell, Lugoff; alternate, A. W. Burnet, Camden.

At the regular March meeting of the Society, Dr. Corbett, to the universal regret of the society, resigned the office of secretary and treasurer, as he felt that he would be unable to give the necessary time to the duties of the office. Dr. W. J. Burdell, of Lugoff, was elected to serve out the remainder of the year as secretary and treasurer.

Hospital Movement.

A committee of the society is at work looking into the advisability, possibility, probability, &c., of building a hospital in Camden. We hope to be able to report for the next issue that steps are being taken to get to work in reality in this important matter.

An Honored Name.

The society today was pleased to have in attendance Dr. A. A. Moore. Dr. Moore, who, as all members of the State Association who attend the annual meetings know, is one of the young (?) men of the Association. We are always glad to have him with us, and many of his friends who read the Journal will be pleased to know that although the Doctor has been a member of the State Association about forty years, and of this county society for forty-one years, he is as devoted as ever to both the societies.—W. J. Burdell, M. D., Sec'y.

LAURENS.

The Laurens County Medical Association met Monday afternoon, Feb. 22, in the office of Dr. R. E. Hughes, with a fairly good number of its members in attendance. President S. F. Blakely of Ora presided at the meeting, stating at the opening that because of his intention to move to Spartanburg in the near future he would be compelled to resign his position. The announcement was received with much regret by the members; action was deferred until the next meeting to be held March 22.

The feature of the doctors' meeting on Monday was the paper read by Dr. J. L. Fennel on the subject, "The Increased Frequency of Heart Disease." Dr. Fennel was highly complimented on this excellent paper.

For the March meeting of the association, Drs. Hughes and Franklin were appointed to read papers. By special request Dr. Hughes will prepare a treatise of the subject: "Fake Medicine Advertisements and

the Religious Newspapers," which will doubtless prove unusually interesting.

A Splendid Movement.

At this meeting a resolution was adopted to offer a medal to each grade in the city schools, to be rewarded to that pupil who should excel in neatness and cleanliness of person. Drs. Hughes, Christopher and Ferguson were appointed a committee to act with the teachers in deciding the winners. This resolution was adopted in view of the concerted effort throughout the country in behalf of hygiene and general sanitation, the medical society considering the public schools the best possible place to begin such work.

Drs. Hughes, Blakely and Ferguson were appointed a committee to work for the improvement of the general sanitary conditions of the county; and the society, through a committee consisting of Drs. Dial, Ferguson and Schayer, will endorse the movement to establish a National Department of Health at the next session of Congress.

PICKENS.

The regular monthly meeting of the Pickens County Medical Society was held at Easley, S. C., March 3rd, 1909. Dr. J. L. Bolt, president, called the meeting to order. The following members of the society were present: Drs. Wyatt, Russell, Tripp, Allgood, Rosemond, Sheldon, Valley and Gilliland. Dr. Sheldon read a paper on bronchopneumonia. The paper showed a thorough knowledge of the subject, and was listened to by the members of the society with much interest. Dr. W. A. Tripp lead discussion in his usual forcible manner. Dr. Tripp relies on brandy as a cardiac stimulant in broncho-pneumonia. Dr. Tripp's remarks were well received. The next paper read was on acute-parenchymatous nephritis. Dr. Valley is one of the youngest members of the society, but his paper was very good. Dr. C. N. Wyatt was asked to lead in the discussion, as Dr. Webb who was appointed was absent. Dr. Wyatt's remarks were very intelligent and showed a very thorough knowledge of the statement of acute nephritis. At the next meeting of the society Dr. C. N. Wyatt will read a paper of the management of normal labor. The discussion will be lead by Dr. E. F. Wyatt. Dr. W. A. Tripp was unanimously re-elected a

delegate to the next annual meeting of the South Carolina Medical Association which meets in April at Summerville, S. C. Dr. C. N. Wyatt was elected alternate delegate. The Pickens County Medical Society is in a very flourishing condition and has a large attendance for the number of members.—R. J. Gilliland, M. D., Secretary.

SPARTANBURG.

The Spartanburg County Medical Society held its regular monthly meeting February 26th, with the president, Dr. S. T. D. Lancaster, in the chair and twenty members and four guests present. Dr. G. DeFoix Wilson read a paper, the subject of which was "Thanks Until You're Better Paid" in which he urged that the assistant and anaesthetist should be given a fee by the operator if the latter receives a fee. Dr. W. B. Lyles discussed this paper.

Drs. Potts and Williams who attended the Tri-State-Medical Society meeting in Charleston reported this as the most successful meeting in its history. The society had the pleasure of having with them Dr. E. W. Carpenter of Greenville, S. C., who gave a demonstration of the tracheo-bronchoscope and explained in a most interesting manner the value and method of using these instruments, both for diagnostic and clinical purposes.

It was decided that the board of censors call upon the editors of both local newspapers and request them not to publish the names of physicians in connection with any case, except with the knowledge and consent of the physician, as several physicians have recently been annoyed by having their names mentioned in the newspapers in connection with cases, and this was decided upon as the best method to prevent a recurrence of same.—L. Rosa H. Gantt, M. D., Secretary.

Correspondence

ATROPINE AS A HEMOSTATIC.

1424 E. Ravenswood Pk.,
Chicago, Ill.,
March 9th, 1909.

To the Editor: I am collecting material for a paper upon atropine as a hemostatic

and would be obliged to any of your readers who would send me notes of their experience with this remedy. I am particularly anxious to receive adverse reports, as well as those favoring the remedy.

William F. Waugh.

Book Reviews

SURGICAL MEMOIRS

And Other Essays. By James G. Mumford, M. D., Instructor in Surgery, Harvard Medical School; Visiting Surgeon to the Massachusetts General Hospital; Fellow of the American Medical Association; etc., etc. pp. 358. Illustrated. New York. Moffat, Yard & Co., 1908.

This is a collection of more or less abbreviated biographical essays, for the most part. Appropriately enough, the frontispiece is a portrait of Lord Lister, the man who made modern surgery possible. Dr. Mumford writes in an attractive style and gives us in brief form a valuable insight into the history of surgery from the days of Hippocrates to modern times. The reading of these memoirs is an easy and entertaining way for the present-day physician and surgeon to acquaint himself, in partial fashion, at least, with the lives and times of the forefathers of medicine and surgery—a portion of every physician's education which should not be, but often is, neglected. There is nothing technical about the volume, and it is an admirable one for the reception room table.

PRINCIPLES AND PRACTICE OF PHYSICAL DIAGNOSIS.

By John C. DaCosta, Jr., M. D., Associate in Clinical Medicine, Jefferson Medical College, Philadelphia. Octavo of 548 pages, 212 illustrations. Philadelphia and London. W. B. Saunders Company, 1908. Cloth, \$3.50 net.

On the fly leaf opposite the title page of Dr. DaCosta's book is the following quotation from W. W. Keen: "With all our varied instruments of precision, useful as they are, nothing can replace the watchful eye, the alert ear, the tactful finger, and the logical mind which correlates the facts obtained through all these avenues of information and so reaches an exact diagnosis." There could be no better text for

the student of physical diagnosis to bear always in mind, and what physician or surgeon is there who should not be, in so far as in him lies, a master of physical diagnosis? Dr. DaCosta has succeeded in giving us a work valuable alike to student and practitioner. His detail is practical detail, and his methods are classical. The book will be popular.

DISEASES OF THE GENITO-URINARY ORGANS AND THE KIDNEY.

By Robert H. Greene, M. D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, M. D., Assistant Professor of Clinical Medicine, University and Bellevue Hospital Medical School. Second Revised Edition. Octavo of 605 pages, profusely illustrated. Philadelphia and London. W. B. Saunders Company, 1908. Cloth, \$5.00 net; Half Morroco, \$6.50 net.

The appearance of a second edition of this valuable work in hardly more than a year after its first publication, is a tribute to its inherent merit. From the subject of general examination of patients and the details of precise instrumental examination, to the most delicate and complicated surgical procedures met with in this branch of surgery, the authors have thoroughly and luminously covered the ground. It must not be supposed, however, that the work is exclusively upon G. U. surgery. Quite as much space is given to prophylaxis, medicine and hygiene, and the style throughout is clear and convincing. In this new edition several new operative procedures are incorporated and certain portions of the original text have been somewhat elaborated. The work is the joint production of a surgeon and a physician, and each has successfully delivered himself of his task. The work will be regarded as a classic.

A TEXT-BOOK OF GENERAL BACTERIOLOGY.

By Edwin O. Jordan, Ph. D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Octavo of 557 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1908. Cloth, \$3.00 net.

Professor Jordan gives us a little work which, it seems to us, will certainly fill a very valuable place in every general scientific course. His treatment of the subject at hand is by no means exhaustive, and is

not intended to be, but the student who masters this book of about 500 pages, will have at his command the foundation essential not only to the further study of bacteriology as a specialty, but also the rudimentary understanding which is necessary to the intelligent study of modern pathology. It is a work which will appeal to every physician.

ORTHOPEDIC SURGERY.

For practitioners, by Henry Ling Taylor, M. D., Professor of Orthopedic Surgery and Attending Orthopedic Surgeon, New York Post-Graduate Medical School and Hospital; Assistant Surgeon, Hospital for the Ruptured and Crippled, New York. Assisted by Charles Ogilvy, M. D., and Fred H. Albee, M. D. With two hundred and fifty-four illustrations. New York and London. D. Appleton & Co., 1909.

A large part of general practice is made up of crippling affections which could be handled with credit by the practitioner if he would only avail himself of the information which we believe can be found in this work of Dr. Taylor's. When one considers the large number of congenital, postural, traumatic, paralytic, rachitic, "rheumatoid", tuberculous, and other deforming affections in children and adults, it will be conceded that they comprise no inconsiderable part of the material which is presented to the practicing physician in the ordinary course of his work. The work is divided into general, special, and technical parts, this arrangement economizing space, emphasizing the importance of underlying causes, and being more convenient for reference. In the general part the underlying principles are discussed, and there are brief descriptions of the more important crippling affections. In the special part the principal deformities and crippling affections of each part of the body are taken up in the topographical order given in the table of contents; special attention has been paid to diagnosis, prevention, prognosis, and treatment. The theory and practice of splinting, in its broader sense, the mechanical control of motion and pressure for therapeutic purposes, are given in the third, or technical, part. The author tells us that as much pains has been taken with the illustrations as with the text. With few exceptions, the subjects were selected, posed, and photographed by the author especially

for this volume. Modern orthopedic surgery has completely emancipated itself from its former rather narrow limits, and is at this time making vast progress in the simplification and proper choice of methods. It is this progressive, vital, modern orthopedic surgery that the author has successfully presented. It is the expressed hope of Professor Taylor, and in view of this work of his it seems to us an easily justifiable hope, that the practical details of the orthopedic art and science shall become available in general practice, and every physician who secures and reads this book will help in the fruition of that hope. The work is well and freely illustrated, and it is enough to say that the mechanical work is fully up to the Appleton standard.

KEEN'S SURGERY, VOL. IV.

Surgery: Its Principles and Practice. In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL. D., Hon. F. R. C. S., Eng. and Edin., Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Phila. Volume IV. Octavo of 1194 pages, with 562 text-illustrations and 9 colored plates. Philadelphia and London: W. B. Saunders Company, 1908. Per volume: Cloth, \$7.00 net; Half Morocco, \$8.00 net.

The fourth volume of this classical work is devoted to surgical conditions of the intestines, rectum, hernia, genito-urinary, eye, ear, military, naval and tropical surgery. Some of the most distinguished surgeons and authors of the world contribute to this as to the other volumes. Among the best known names are Robert Abbe, Arthur Dean Bevan, Arthur T. Cabot, William B. Coley, E. B. Dench, G. E. de Schweinitz, Bransford Lewis, John B. Murphy and others. The immense scope of this work of Professor Keen's, elucidating at first hand the best work of specialists in every branch of surgery, makes it a work which no man in any sort of active practice can afford to have missing from his library. There is a vast amount of practical conservative information and advice for the proper care of conditions which may not, in every case, be strictly surgical; so that the work makes itself, in this respect, an extremely valuable one even to the practitioner who does no major surgery. This volume in contents and mechanical work is fully up to the standard set by the three preceding

volumes, and the whole work will doubtless be accepted, for years to come, as a masterpiece of classical compilation.

NEW AND NONOFFICIAL REMEDIES.

Articles Which Have Been Accepted by the Council on Pharmacy and Chemistry of the American Medical Association, Prior to January, 1909. Chicago: Press of the American Medical Association, 103 Dearborn Avenue. Paper 25c; cloth, 50c.

This is the first regular edition of the Annual New and Nonofficial Remedies, and it contains a list of the remedial preparations approved by the Council on Pharmacy and Chemistry of the American Medical Association. Instead of adhering strictly to an alphabetic arrangement a classification has been adopted which permits an easy comparison of remedies of similar origin and properties. Mixtures are to be found in the appendix and a number of non-proprietary preparations have been added which, for various reasons, have not been admitted to the Pharmacopeia. The descriptions in the appendix have been made as brief as possible and the articles are classified under the names of the manufacturers. Therapeutic indications are not given, as it is assumed that the physician is able to apply his knowledge of the pharmacologic properties of the ingredients without aids from either the Council or the manufacturer. The non-proprietary remedies admitted to the body of the book are described as accurately and carefully as a painstaking search of the literature would permit. The descriptions of processes of preparations, chemical and physical, and of the physiologic action contain much information which can not fail to be of immense value both to physicians and to pharmacists. Over 200 different remedies are described, and after mastering the Pharmacopeia the practitioner and the student should become thoroughly familiar with this presentation of the newer *materia medica*.

BOOKS RECEIVED.

Twenty-ninth Annual Report S. C. State Board of Health.

Orthopedic Surgery. Taylor. D. Appleton & Co.

Appendicitis. Kelly. J. B. Lippincott Co.

New and Nonofficial Remedies. American Medical Association.

Constipation and Intestinal Obstruction. Cant. W. B. Saunders Company.

Pocket Medical Formulary. Powell. W. B. Saunders Company.

Current Reviews

SURGERY.

Technique of Skin Grafting.

Dr. E. MacD. Stanton (N. Y. S. Jour. of Med., January, 1909) presents the following practical rules: 1. Graft either on a freshly cut non-infected surface or on a clean firm granulating surface without curetting or interfering with this surface in any way. 2. Take the grafts from the individual to be grafted. 3. In the majority of cases a general anesthetic is unnecessary. 4. Spread the grafts directly upon the surface to be grafted without first transferring them to normal salt or other solutions. 5. See that the grafts completely cover the area to be grafted. 6. Cut the grafts so as to use the deeper epithelial layers of the skin, but so as not to include the connective tissue layer or corium. Grafts cut too thick have a whitish, opaque appearance, whereas properly cut grafts have a distinctly translucent appearance. 7. Dress with forty or more layers of plain, sterile gauze held in place by narrow strips of adhesive plaster, and apply an outer dressing of cotton, held in place by a moderately firm bandage. 8. Change the dressing for the first time on the fifth day, and after that as often as may be necessary to keep the wound free from purulent material. 9. Keep the grafted area at rest during the first week or ten days, and if it is an extremity, elevate the same to lessen congestion of the part.

PRACTICE OF MEDICINE.

The Ophthalmic Reaction Dangerous.

Permanent injuries to healthy eyes from the ophthalmic-reaction have been reported by Kalt and Barbier, and recently Schrumpf (Muench. Med. Wochenschr., No. 43, 1908) has reported disastrous results in two patients.

A single drop of a 1 per cent. solution of old tuberculin caused an intense conjunctivitis and keratitis, which healed slowly,

leaving a permanently clouded cornea, in one an anterior synechia and in each permanently impaired vision. Kalt's patient, a man 46 years old, with perfectly healthy eyes, reacted to the test with iridochoroiditis, sclero-keratitis and almost total loss of vision; Barbier's with keratitis and complete loss of sharp vision. Another objection to the test is that it materially interferes with subsequent tuberculin treatment, each dose of tuberculin may light up the conjunctivitis anew. Schrumpf concludes: (1) The most careful administration of the Calmette ophthalmic test may cause grave and permanent injury to the eye; (2) if the test is made it should be made with the utmost caution, and only after the patient has been warned of the possible results.—Colorado Medicine.

READING NOTICE.

Dr. Katherine L. Storm, of Philadelphia, has placed upon the market a form of abdominal binder and supporter which bids fair to become the most popular of any yet introduced to the profession. This binder took the prize offered by the Managers of the Woman's Hospital, of Philadelphia. It is a light, flexible, washable and durable appliance, without rubber or steel in its construction. It is used for any purpose for which an abdominal supporter may be needed for a man, woman or child. It is applicable for general support, and, by means of a reinforcing strap, with pad, it may be used for local support as well, for instance, for hernia. It is especially valuable for movable kidney, enteroptosis or Glenard's disease. It is an ideal post-operative binder. It is a great comfort to women during the pregnant and puerperal states. It is readily adjusted and produces no discomfort when worn. Measurements may be taken and supporters ordered from the manufacturers, Katherine L. Storms, M. D., 1612 Diamond Street, Philadelphia, Pa.

The company keeps a record of all measurements sent in, so that orders may be duplicated without difficulty or loss of time. All mail orders are filled within twenty-four hours on receipt of price.

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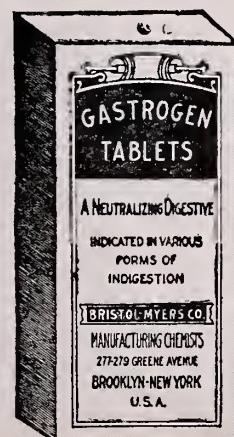
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WANTED—The readers of this Journal to know that an ad. in this column last month, offering a practice for sale, brought 12 replies within one week. A word to the wise.

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BOOKS—Agents wanted for Goldthwait, Painter and Osgood's, Cabot's and Austin's books, and The Boston Medical and Surgical Journal. Write for special offer. D. C. HEATH AND CO., BOSTON, MASS.

NOTICE.

An election will be held in Charleston, S. C., on April 7th, 1909, by the Board of Trustees and Faculty of the Medical College of the State of South Carolina, to fill the Chair of Pathology and Bacteriology. All applications must be sent in to the Secretary of the Board of Trustees and Faculty.

Joseph R. Robertson, Secretary of Board.
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Meeting Street,

South Carolina Medical Association

Next Annual Meeting at Summerville, S. C., April 21, 1909.

House of Delegates Convenes April 20, at 2 p. m.

District No. 1: Charleston, Berkley, Dorchester, Colleton, Hampton and Beaufort, Councillor, J. T. Taylor, M. D. Adams' Run, S. C.

District No. 2: Orangeburg, Bamberg, Barnwell, Lexington and Aiken. Councilor, T. G. Croft, M. D., Aiken, S. C.

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District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor, W. B. Cox, M. D., Chester, S. C.

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TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay.

County Society	President.	Secretary	Time of Meeting.
Abbeville	J. B. Britt	C. C. Gambrell, Abbeville	
Anderson	J. L. Gray	J. R. Young, Anderson	Semi-Mo., 1st and 3rd Mon
Aiken	C. A. Teague	T.A. Quattlebaum, Gr't'ville	Monthly, 1st Monday.
Bamberg . . . . .	. . . . .	J. J. Cleckley, Bamberg	
Barnwell	A. B. Patterson	L. F. Bonner, Blackville	
Beaufort	H. M. Stuart	M. B. Cope, Port Royal	
Charleston	John L. Dawson	A. J. Jersey, Charleston	Semi-Mo., 1st and 15th.
Cherokee . . . . .	. . . . .	B. L. Anken, Gaffney	
Chester	J. G. Johnston	W. B. Cox, Chester	Monthly, 1st Monday.
Clarendon	A. S. Todd	C. B. Geiger, Manning	Quarterly.
Chesterfield	T. E. Lucas	J.W. McCanless, Chesterfield	
Colleton	J. T. Taylor	T. G. Kershaw, Walterboro	Monthly.
Darlington	J. F. Watson	J. C. Lawson, Darlington	
Dorchester	J. B. Johnston	E. W. Simons, Summerville	Monthly, 1st Monday
Edgefield . . . . .	. . . . .	J. G. Edwards, Edgefield	
Fairfield	R. B. Hanahan	Samuel Lindsay, Winnsboro	Quarterly.
Florence	F. H. McLeod	J. H. Peele, Cartersville	
Georgetown	Olin Sawyer	W. M. Gaillard, Georgetown	Monthly, 1st Friday.
Greenville	L. L. Richardson	W. M. Burnett, Greenville	Monthly, 1st Monday.
Greenwood	R. B. Epting	J. B. Hughey, Greenwood	Monthly, 1st.
Hampton	T. B. Whatley	C. A. Rush, Hampton	Monthly, 3rd Wednesday.
Horry	A. D. Lewis	J. S. Dusenbury, Conway	Monthly, 2nd Monday.
Kershaw	S. C. Zemp	W. J. Burdell, Lugoff	
Laurens	S. F. Blakeley	J. H. Teague, Laurens	Monthly, 4th Monday.
Lee	B. L. Harris	L. H. Jennings, Bishopville	Monthly, 1st Tuesday.
Lexington	W. L. Kneece	J. J. Wingard, Lexington	Quarterly.
Marion	B. M. Badger		
Marlboro	W. M. Reedy	Chas. R. May, Bennettsville	
Newberry	P. G. Ellisor	W. E. Pelham, Jr. Newberry	
Oconee	B. F. Sloan	H. E. Rosser, Westminster	
Orangeburg	W. L. Pou	D. D. Salley, Orangeburg	Monthly, 3rd Tuesday.
Pickens	J. L. Bolt	R. J. Gilliland, Easley	Monthly, 1st Wednesday.
Richland	L. A. Griffith	Mary R. Baker, Columbia	Every 2nd Monday night.
Saluda	D. B. Frontis	J. D. Waters, Coleman	
Spartanburg	S. T. D. Lancaster	L. Rosa H. Gantt, Sp't'n'b'g	Monthly, last Friday.
Sumter	Archie China	E. R. Wilson, Sumter	Monthly, 1st Thursday.
Union	J. T. Jeter	R. R. Berry, Union	Weekly
Williamsburg	W. S. Lynch	J. B. DuRant, Lake City	Monthly.
York	M. J. Walker	John I. Barron, Yorkville	Bi-Monthly.



ANNUAL MEETING

The South Carolina Medical Association

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April 21-22, 1909. House of Delegates April 20

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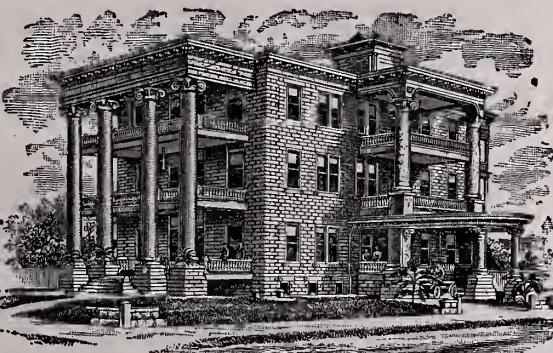
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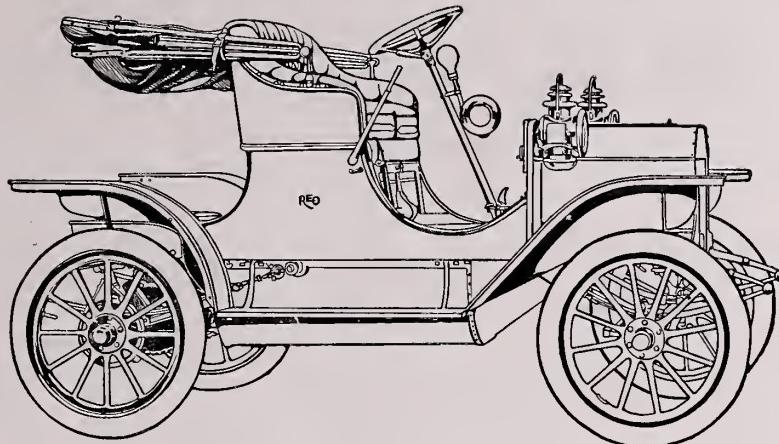
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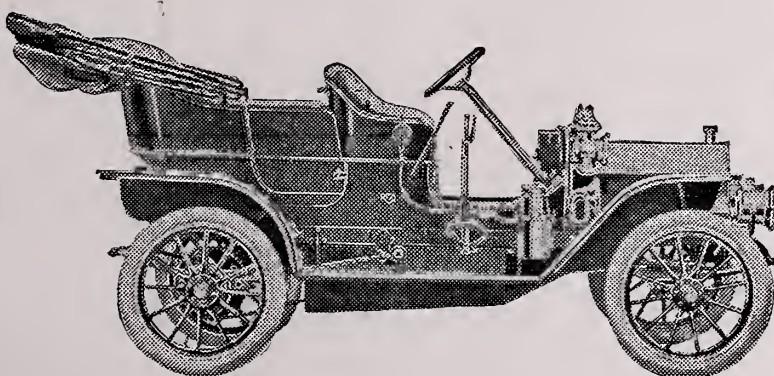
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The Journal OF THE South Carolina Medical Association

Volume V.

Greenville, S. C., April, 1909

Number 4

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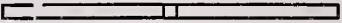
Medical College

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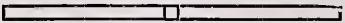
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The Journal of the South Carolina Medical Association

Published Every Month Under the Direction of the Board of Councilors

Office of Publication, Bank of Commerce Building, Greenville, S. C.

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VOL. V.

J. W. JERVEY, M. D., EDITOR

No. 4

APRIL, 1909

ANNUAL SUBSCRIPTION, \$2.00

The Journal is published monthly, under the auspices of the South Carolina Medical Association. Original Articles are solicited. Members who do not receive their copies will please notify the Business Manager. Correspondents and Secretaries of County Societies are urgently requested to send reports of their meetings, and items of news that may be of interest to the profession, to the Editor. All articles should be typewritten. Illustrations sent with articles will be printed. For prices of reprints see advertising pages.

All matters must be in the hands of the editor by the 5th of each month.

Proofs of all Original Articles appearing in the Journal are revised and corrected by their authors. The Journal is in no sense responsible for expressions in Original Articles.

Business communications relating to subscriptions and advertising should be addressed to

Journal S. C. Med. Assn., Greenville, S. C.

Editorial

All Aboard for Summerville!

THE PATHOGENESIS OF GENERAL PARALYSIS AND TABES DORSALIS.

In a recent issue of the Lancet, Dr. W. Ford Robertson presents the results of observations personally made by his colleagues and himself in the course of a special investigation into the pathology and treatment of general paralysis and tabes dorsalis, commenced in 1902. Briefly it can be said they have found that bacilli of the diphtheroid group can be shown to be invading the tissues in all advancing cases of these diseases, the chief seats of invasion, or of the infective foci, being the naso-pharyngeal and oral mucosae, in cases of general paralysis, and the genito-urinary tract in cases of tabes. The experiments seem to have been carefully conducted and the results are extremely interesting even if not absolutely conclusive.

The importance of these observations lies in the fact that the entering wedge appears for the treatment of these diseases with an anti-serum, and it is claim-

ed by the observers that good results have followed treatment in this wise, the serum being prepared from sheep immunized with the special diphtheroid bacilli. An effort has also been made to combat the naso-pharyngeal and oral infections by local measures in the form of nasal sprays and applications, and it is said that a one per cent. solution of perhydrol, both as a nasal spray and as a mouth wash, applied daily, or every other day, has resulted in distinct benefit in many cases, the application evolving oxygen, which is destructive of these anaerobic bacilli.

Dr. Robertson maintains that these observations in no way interfere with the commonly accepted theory that syphilis plays an important part in the pathogenesis of these diseases. He contends that syphilis does not act directly as a causative agent, but by impairing the general and local defense against certain bacteria; thus, as a cause of paralysis, syphilis acts mainly by damaging the nasal mucosa in such a way as to weaken its power of resistance, permitting the

implantation of the especial bacillary infection which he claims to have been isolated. In the same way the infection of tabes occurs by invasion through the damaged genito-urinary tract, and he believes, incidentally, that gonorrhea is of greater importance than syphilis as a predisposing factor. When unsuccessful results follow his plan of treatment, he contends that severe secondary infections can be demonstrated. The toxic invasion in both diseases is essentially lymphogenous.

These observations and conclusions appear to us to be of great importance in the study and management of these diseases, which have hitherto been regarded as incurable; and the possibility of a way being opened for their successful management makes of even greater interest the promise of Dr. Robertson to publish further observations in due course.

It is not too early to begin to lay your plans for attending the annual meeting of the state association at Summerville, April 21 and 22, next. House of Delegates convenes April 20.

WHY YOU SHOULD JOIN A COUNTY MEDICAL SOCIETY.

1. Because it federates and brings together into a compact organization the medical profession of the country.
2. Because friendship, mutual respect and unity of sentiment are promoted by direct personal intercourse.
3. Because it builds up social intercourse between physicians and their families.
4. Because, bringing the physicians together so they may know each other, will prevent envy, jealousy and local animosity, and this can be done in no other way.
5. Because it increases practical and scientific medical knowledge.
6. Because it is a post-graduate medical school at home.

7. Because it makes possible among physicians better business conditions and methods.

8. Because by it the profession is able to make itself felt in local sanitary and health work.

9. Because it educates the public to a higher respect for the medical fraternity.

10. Because it is the unit and foundation of the organization and only through it can physicians become members of their State and National Associations.—Texas State Journal of Medicine.

Sufficient unto the situation is the excellence of the reasoning. These are facts which are thoroughly established on a basis of experience and observation. The inevitable conclusion for the intelligent man is, epitomizing the ten reasons cited above:

11. Because you cannot afford not to.
-

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

AN ORGANIZED CONSPIRACY.

That the quack and nostrum interests and their allies, the subsidized medical and drug journals, have entered into what is intended to be a far-reaching conspiracy to break down the forces of organized medicine, which stands for an open, honest drug trade, pure food and an uplift all along, is no longer a matter of doubt. Letters have come into the hands of our friends from some of the leaders, advising that they act in concert in everything. One time all the muck-rakers are to turn loose on Simmens, and all the petty slanders, distortions and innuendoes are to be echoed and re-echoed back and forth, with just enough variation to fool the groundlings, until the country rings with them. Another time it is Reed, McCormack, the Council of Pharmacy, but always with Tray, Blanche and Sweetheart join-

ed in the cry. One time they attack the organization journals, another time the medical defense plan; anything to weaken the organization, and when their representative in Texas or Tennessee gives the word, the ones in North Carolina, Kentucky, Oregon and other States get busy. The real profession understands all this so well, and knows so well the source of the tainted quack and nostrum money back of the conspiracy, that Simmons and others attacked are "only the better loved because of the enemies they have made." There are a few really independent journals, living upon their merits, which could be no more induced to enter into such a conspiracy, or even to serve its purpose indirectly than we would, and these deserve and should have the most loyal support of the organized profession.—Kentucky Medical Journal.

The methods of "Tray, Blanche and Sweetheart" are so rankly putrid that by comparison, speaking figuratively, the fetor of the far-famed *Mephitis Mephitica* would be as the perfume of the violet and the yellow jasmine. But nobody but themselves pays the least attention to them, we believe—at any rate we have never heard of anybody who does—and it is certainly inconceivable that any intelligent professional man would for a moment be influenced by the nasty vomit of such dishwater and billingsgate. It is impossible to comprehend how anyone with an atom of sense could hope by such weak and dirty and transparently false methods to attract the support of any except the merest scum of the earth.

Simmons and McCormack and Reed and the others are all right, and they will stay where they are—doing a magnificent work for the renaissance of a credulous and venally imposed upon profession. They expect to make enemies, and they can afford to despise knockers.

Editorial Notes

Readers of papers at the coming annual meeting in Summerville should bear in mind that for the proper handling of them in the Journal they must be type-written.

The meeting in Summerville, April 20-22, next, will be the biggest and best ever held by our state association. There is not a doctor in the state who can afford to absent himself.

Under the head of correspondence, this issue, we print a letter from Dr. W. C. Abbott calling attention to the needs of Dr. W. B. Atkinson "for many years the honored, respected and loved secretary of the A. M. A." We do not know at the moment the actual financial condition of the A. M. A. treasury, or the budget of its necessary expenses for the next year; and we regret to say that neither do we know Dr. Atkinson personally. If, however, the facts are as alleged, as we have every reason to believe they are, we feel sure that those of the profession of this state who are members of the A. M. A. would be glad to do their part in supporting any movement for the pensioning of one who has rendered valuable service to the cause of organized medicine. Let us all remember that material in this world, of world, of duty well done, is vastly sweetener than the building of a monument and the hanging of fast fading garlands after the worker has left us for the world to come.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

NOTICE

SIXTY-FIRST ANNUAL MEETING South Carolina Medical Association

TO BE HELD AT

Summerville, S. C., April 21-22, 1909.

HOUSE OF DELEGATES CONVENES 2 P. M., APRIL 20.

When you buy your railroad ticket to Summerville, get a receipt-certificate from the ticket agent, entitling you to a return rate of one-third fare. This is the customary arrangement.

This year, for the first time, there will be two sections of the meeting—a medical and a surgical.

We print below the final program as furnished by the secretary, and the list of authorized delegates so far as the Journal has been able to get the names from the various individual county secretaries.

**FINAL PROGRAM OF THE SIXTY-FIRST
ANNUAL MEETING OF THE SOUTH
CAROLINA MEDICAL ASSOCIATION.**

**To Be Held At Summerville, S. C., April
20th, 21st and 22nd, 1909.**

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H. R. Black, 1st vice president, Spartanburg.

W. H. Nardin, Jr., 2nd vice-pres't, Anderson.

A. T. Baird, 3rd vice-president, Darlington.

Walter Cheyne, secretary, Sumter.

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Second District:

T. G. Croft, 1909, Aiken.

Third District:

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Fourth District:

H. R. Black, 1909, Spartanburg.

Fifth District:

W. B. Cox, 1910, Chester.

Sixth District:

F. H. McLeod, 1909, Florence.

Seventh District:

F. M. Dwight, 1910, Wedgefield.

Delegates to the American Medical Association.

Walter Cheyne, secretary, ex-officio, Sumter.

R. S. Cathcart, 1910, Charleston.

T. P. Whaley, alternate, 1910, Charleston.

W. C. Black, alternate, 1910, Greenville.

Committee on Arrangements.

Drs. F. Julian Carroll, chairman; J. B. Johnson, E. D. Tupper, Edmund W. Simmons; Drs. C. W. Kollock, C. M. Rees, T.

P. Whaley, of Charleston.

Committee on Scientific Work.

Walter Cheyne, secretary, ex-officio, J. T. Taylor, F. L. Potts.

Committee on Public Policy and Legislation.

LeGrand Guerry, Columbia; R. B. Epting, Greenwood; W. A. Boyd, Columbia.

Committee on the Prevention of Venereal Disease.

T. P. Whaley, C. W. Barron, Davis Furman; president, and secretary, ex-officio.

Committee on Necrology.

J. L. Gray, A. J. Jersey, G. A. Bunch.

Announcements.

Reduced rates will be granted to the bearer of a certificate, duly countersigned by the secretary of this association and the agent of the railroad company, at Summerville, S. C. Do not fail to secure this blank properly filled out by your local railroad agent.

Titles of papers to be read must be in the office of the secretary not later than the first day of April, to appear upon the final program.

Unannounced subjects will have no place on the final program.

Pine Forest Inn will be the headquarters of the association. Reduced rates of \$3.00 per day. House of Delegates, Medical and Surgical Sections, will meet at Pine Forest Inn. Dorchester Inn, \$2.00 per day.

Council will meet 9 p. m. Monday, 19th.

A meeting to organize a County Secretaries' Association will be held on Tuesday, 11 a. m. Every secretary is requested to be present.

House of Delegates meets at 2 p. m., Tuesday, April 21st. Each delegate is requested to present his proper credentials. It is desired that all business matters be disposed of on Tuesday so that the Scientific Sessions shall not be interfered with.

By-Laws, Chapter 9, Section 11: "The Secretary of the (County) Society shall send a list of Delegates to the Secretary of the Association, at least ten days before the annual session."

All papers read are the property of the Association and are to be deposited immediately after reading, with the secretary.

Railroad connection for Summerville may be made with all trains from Columbia and Augusta, over the Southern and Coast Line. Seven trains daily from Charleston.

Order of Entertainment.

Reception at the Pine Forest Inn, April 21st, 9 p. m.

Reception at "Pinehurst Tea Gardens" near Summerville (the only tea garden in North America). This reception will be tendered the Association by the hospitable founder, Dr. Charles U. Shepard, April 22nd, at 5 p. m.

"A Smoker" at the Pine Forest Inn, April 22nd, 9 p. m.

Order of Business, House of Delegates.

The House of Delegates will meet in the Pine Forest Inn, and will be called to order by the President, at 2 p. m., Tuesday, April 20th. The General Order will be as follows:

Call to order by President, at 2 p. m.
Appointment of Committee on Credentials.
Report of Treasurer.
Report of Secretary.
Report of Scientific Committee.
Report of the Committee on Public Policy and Legislation.

Report of the State Board of Health.

Report of State Board of Medical Examiners.

Report of the Councilors: First District, J. T. Taylor, M. D.; Second District, T. G. Croft, M. D.; Third District, O. B. Mayer, M. D.; Fourth District, H. R. Black, M. D.; Fifth District, W. B. Cox, M. D.; Sixth District, F. H. McLeod, M. D.; Seventh District, F. M. Dwight, M. D.

Report of Committee on the Prevention of Venereal Disease.

Report of Committee on Necrology.

Introduction of New Business.

Miscellaneous Business.

General Session.

Surgical and Medical, Wednesday, April 21st, 10:30 a. m. Chairman, President, S. C. Baker.

Call to Order.

Divine Invocation, Rev. F. W. Ambler.

Address of Welcome, F. Julian Carroll.

Response, President S. C. Baker.

President's Address, S. C. Baker.

Sources and Modes of Infection in Tuberculosis: Mazyck P. Ravenel, Madison, Wis.

Uro-genital Tuberculosis, with Especial Consideration of Tuberculosis of the Bladder: Bransford Lewis, St. Louis, Mo.

Quarantine and Disinfection: Passed Assistant Surgeon L. E. Cofer.

Etiology, Prevention and Treatment of the More Common Tropical Diseases Met With on the Canal Zone: J. Adams Hayne, U. S. A.

Surgical Section.

Wednesday, April 21st, 12 m.

Chairman, S. C. Baker, M. D.

1. Empiricism in Surgical Practice: Chas. M. Rees, Charleston.
2. Post-Pharyngeal Abscesses: E. W. Carpenter, Greenville.
3. Tuberculosis of the Head of the Colon Mistaken for Appendicitis: H. R. Black, Spartanburg.
4. Foreign Bodies in the Oesophagus: T. Prioleau Whaley, Charleston.
5. Anesthetics; Chloroform or Ether? Walter Cheyne, Sumter.
6. Similar Symptomatology in Chronic Appendicitis and Chronic Gall Bladder Lesion; Report of Cases: A. E. Baker, Charleston.
7. A Method of Removing Anterior Displacements of the Triangular Cartilage of the Nose. Cases: W. Peyre Porcher, Charleston.
8. An Unusual Case of Appendicitis: Theodore Maddox, Union.
9. Deformities of the Nasal Septum; Their Causes and Effects and the Modern Operation for Their Correction: E. R. Wilson, Sumter.
10. Report of an Unusual Case of Foreign Body in the Eye; Removal after thirty-six years: E. R. Wilson, Sumter.
11. The Relations in an Undescended Testicle to Strangulated Hernia; Proper Operation: G. R. Dean, Spartanburg.
12. Preventable Blindness: E. R. Parker, Charleston.
13. The Treatment of Ophthalmia Neonatorum: J. W. Jersey, Greenville.
14. The Local and Constitutional Treatment of Corneal Ulceration: Charles W. Kollock, Charleston.
15. Intra-peritoneal Infusion of Normal Saline Solution: A. B. Knowlton, Columbia.

16. Spina Bifida, With Report of a Rare Form: J. H. Taylor, Columbia.

17. Gun-shot Wound of Elbow; Recovery: John B. Britt, Troy.

18. Obstetrics; Laceration: T. L. W. Bailey, Clinton.

19. Peripheral Operation for Tic-Douloureux; Report of Case: A. E. Baker, Charleston.

20. Some of the Mooted Points in Appendicitis: J. C. Harris, Anderson.

21. Operation for Complete Removal of the Mammary Gland for Malignant Growths: R. S. Cathcart, Charleston.

22. Fracture of the Olecranon; With Radiographs: Walter Cheyne, Sumter.

Medical Section.

Wednesday, April 21st, 10:30 a. m.

Chairman, H. R. Black, M. D.

1. Pathological Significance of Diseased Tonsils: John F. Townsend, Charleston.
2. Septic Endo-carditis in a Child: J. J. Watson, Columbia.
3. Two Cases of Hematemesis in Infants Occurring in Same Family: J. J. Watson, Columbia.
4. Preventive Tendencies and Measures: Fillmore Moore, Aiken.
5. Sanitation in Small Towns: William Egleston, Hartsville.
6. Hyperchlorhydria; Report of Cases: F. M. Durham Columbia.
7. Pellagra: G. A. Neuffer Abbeville.
8. Atypical Lobar Pneumonia: Robert Wilson, Jr., Charleston.
9. Musca Domestica; The Common House Fly: F. A. Coward, Columbia.
10. Things the Doctor Should Know About Milk: F. A. Coward, Columbia.
11. Cancer of the Uterus; A Plea for Early Diagnosis: H. R. Black, Spartanburg.
12. Mucous Colitis: A. G. Eaddy, Timmonsville.
13. The Surgeon Versus the Physician: J. F. Williams, Roebuck.
14. Typhoid Perforations: H. M. Stuckey, Sumter.
15. State Board of Health: A. Bethune Patterson, Barnwell.
16. Infantile Syphilis: Wm. P. Cornell, Charleston.
17. A Few Suggestions on, and the Common Sense Treatment of Indigestion: J. Will McCanless, Chesterfield.
18. The Influence of a Model Physician in

- the Prevention of Tuberculosis: W. B. Young, Rockhill.
19. Specialism Among General Practitioners: D. B. Frontis, Ridge Springs.
20. The Present Status of the Treatment of Goitre: LeGrand Guerry, Columbia.
21. Visceral Syphilis: J. C. Sosnowski, Charleston.
22. Diuresis Dependent on Circulatory Changes: John Forrest, Charleston.
23. Strychnine in the Treatment of Cerebral Hemorrhage: M. J. D. Dantzler, Elloree.
24. Nephritis: B. W. Hunter, Charleston.
25. Neurasthenia: R. E. Mason, Greenwood.
26. The Significance of Angiosclerosis in the Eye (Illustrated by Lantern Slides): Chas. W. Kollock, Charleston.

Delegates.

Following is a corrected list of the delegates officially elected to represent their respective county societies at the Summerville meeting. Where names are missing from this list it is because repeated requests for the information have failed to bring reply from the secretary of the county medical society:

The seven councilors, president and secretary, ex-officio.

- Abbeville: W. D. Simpson; alternate, C. C. Gambrell.
- Anderson: J. R. Young, B. A. Henry, J. C. Harris; alternates, S. W. Page, J. M. Richardson, W. F. Ashmore.
- Aiken: A. A. Walden, T. A. Quattlebaum.
- Bamberg:
- Barnwell: No organization.
- Beaufort: M. G. Elliott.
- Charleston: T. G. Simons, J. W. Burn, T. P. Whaley.
- Cherokee: J. T. Darwin; alternate, J. M. Caldwell.
- Chester: A. M. Wylie.
- Clarendon: Wm. R. Mood; alternate, Chas. B. Geiger.
- Chesterfield: I. R. Wagner; alternate, L. E. Bull.
- Colleton: W. B. Ackerman.
- Darlington: J. L. Powe, C. C. Hill.
- Dorchester: F. Julian Carroll, J. B. Johnston.
- Edgefield: W. D. Outz; alternate, S. A. Morrall.
- Fairfield:
- Florence: J. G. McMaster.
- Georgetown: Olin Sawyer.
- Greenville: F. G. James, C. B. Earle and E. W. Carpenter.
- Greenwood: S. L. Swygert; alternate, G. P. Neel.
- Hampton: T. P. Whatley; alternates, J. L. Folk, M. B. Monsen.
- Horry: J. A. Norton; alternate, H. H. Burroughs.

- Kershaw: W. J. Burdell; alternate, A. W. Burnet.
- Laurens: W. H. Dial, T. L. W. Bailey; alternates, W. D. Ferguson, A. J. Christopher.
- Lee: J. W. Tarrant.
- Lexington: D. M. Crosson, with authority to name alternate.
- Marion: A. M. Brailsford.
- Marlboro: J. C. Moore; alternate, J. A. Faison.
- Newberry: P. G. Ellisor; alternate, C. T. Wyche.
- Oconee: J. S. Stribling.
- Orangeburg: J. K. Fairey, C. I. Green; alternates A. R. Able, D. D. Salley.
- Pickens: W. A. Tripp; alternate, C. N. Wyatt.
- Richland: Wm. Weston, W. A. Boyd, C. W. Barron.
- Saluda: J. D. Waters; alternate, D. B. Frontis.
- Spartanburg: J. H. Allen, J. F. Williams, F. L. Potts; alternates, S. T. D. Lancaster, W. A. Smith, G. E. Thompson.
- Sumter: H. M. Stuckey.
- Union: Crown Torrence; alternate, M. W. Culp.
- Williamsburg: C. D. Rollins; alternates, S. C. W. Courtney, W. H. Woods.
- York: E. W. Pressley, J. E. Massey, Jr.; alternates, M. J. Walker, I. A. Bigger.

More power to Representative Lever, of South Carolina, who recently defended Dr. Harvey W. Wiley, chief chemist of the Department of Agriculture, in his fight for pure food. In a speech delivered in the House of Representatives, he argued strongly against the legality of the Board of Referees which recently overruled Dr. Wiley's decision condemning the use of benzoate of soda in preserving fruits. "Men of science sometimes disagree in their findings", said Mr. Lever, "with the result that laymen are left to think their opinions valueless. But when it comes to a question of life and health it is the part of wisdom to side with the man obviously working in behalf of health and life. Then we can be sure we are making no fatal mistake."

Mr. Lever is quite right in the view he takes of this important question. Our housewives have not found it necessary to add chemicals to the fruits they preserve, and we may be quite sure when

the manufacturers resort to antiseptics it is not in the interest of the consumer, but rather for the purpose of cheapening the cost of production. As A. P. Matthews remarks (J. A. M. A., March 20): "Whatever the final decision as to the effect on health of sodium benzoate, wise men will continue to regard germicides * * as highly suspicious constituents of our foods, and, as far as possible, purchase foods which are preserved in a cleanly and healthful manner, free from such germicides. We should also express in some way to Dr. Wiley our appreciation of the splendid fight he has made in behalf of all the people against the adulterators and poisoners of our food supplies."—W. Va. Med. Jour.

Original Articles

THE RELIGIOUS PRESS AND QUACKERY.*

By ROLFE E. HUGHES, M. D.,
Laurens, S. C.

The reading of a paper denouncing the religious press for its support of quakery will doubtless prompt the usual comment from the public to the effect that advice is cheap, and, "know when to speak for many times it brings danger to give the best advice to kings." But as it is requested, I comply, though I personally shrink from making an attack of this nature, for the laity is already questioning the frequent and rather fulsome efforts on our part to advise and enlighten, claiming those of us least charitably inclined are the ring leaders in howling our high aims and love of humanity, until the very howling suggests the shrewd misgivings of the queen

in Hamlet—"The lady doth protest too much, methinks". Therefore, any effort on our part to warn them brings up the invariable debate as to the ostensible or real motives that inspire any of our campaigns against charlatanism, be it christian science, eye glass vendors, cancer quacks, dope drugs, or any of these things which they would say conflicted with our mundane interests.

So much are these exposures doubted that we, as a class, are almost persuaded to let the whole business beautifully alone. Rather are we prompted to allow them to plaster on cancer paste until they look like a Fiji Islander, fill their ears so full of artificial drum heads that they can take a wireless from the lost schooner Hesperus, pack a ton of glass, made of pebbles from Jordan's happy shore, before each eye, or saturate their anatomy so full of narcotics that their breath will sprout the poppy plant.

No use to say a word—they don't believe it, but, when the managing editors of religious papers further the cause of such impostors, 'tis right we sound a warning note for, possibly, a rap on his head would arouse a consciousness of the wrong he is doing. He knows better. He is a teacher, his sheet the official organ of some denomination, and should stand for Truth, at least. Its influence is great. Its periodic visits is looked forward to with pleasure in every religious and well regulated home. Its stories are read to the children and enjoyed by older people. Eighty-five per cent. of its readers are not discriminating. They believe every word in it, and go on through life from childhood with undying faith pinned to their church paper, and would as soon doubt their mother or their clergyman. Shame on such editors that they allow their columns to teem with fraudulent and

*Read before Laurens County Medical Society, March 23, 1909.

dangerous ads. It's a disgrace on the age.

One other point: The people at large have never grasped the idea that true physicians cannot and do not advertise. They can only announce—they never guarantee cures, only quacks can. True men of science often labor without glory, money or recognition. Today, Robert Koch, to whom we are indebted for many important truths, is eighty-five years old. He is in the wilds of India, and has been for years, cut off from pleasure, comfort and home. There he will probably soon die, leaving us the heritage of a well-spent and useful life, as well as many facts with which we and the future generations can combat bubonic plague. Not satisfied with what he has already accomplished, he makes this sacrifice for the world. Think of Koch putting an ad in the "Spiritual Monitor", guaranteeing any cure, or even proclaiming himself superior to his humblest colleague!

But of all the quacks who advertise in the papers, the cancer man is possibly the worst. Defined, he is an excrescence on the face of the earth, so irritating to that particular spot on the mundane face, that when he first grew out, the ground heaved and belched forth this spurious form of protoplasm, made of the "Swindle cell" variety. His course through life was nil, having tried everything from waterboy to tramp, until he reads Barnum's autobiography—a large book containing but two statements. One is that the way to fortune is through printer's ink, the other, that every other man is a fool. Assuming these as facts, he dons good clothes; cultivates doctorish mannerisms and, as a poser, he is an artist; gets his presence and wares advertised in the "Salvation Eye-Opener," and there states

that he has taken course after course in the Icatchem Sarcomatous Clinic of Ep-the-burg, when, in reality, he only graduated at the University of Hard Knocks, and he is true to his alma mater, judging by the way he hits the public, as he goes on from village to town, town to city, stealing all he can, for, of course, everything he meets from the tot's granular conjunctivitis to grandma's false teeth, is cancerous. All is easy. Dr. Barnum was right, the religious press backing him, the road to fortune is clear. This picture is not overdrawn. Note the following from the Journal of the A. M. A., Feb. 20th, of this year:

Rupert Wells, M. D., the "cancer cure" faker of St. Louis, has been denied the use of the United States mails by the postoffice-department, which, a few days ago, issued a fraud order against this notorious quack. Samuel Hopkins Adams, in his "Great American Fraud" series, paid his respects to Wells—whose real name, according to the postoffice officials, is Dennie Dupuis—and called attention to the fact that Wells was one of the first to recognize the commercial possibilities of the public's interest in radium as an asset to quackery.

Advertising Myths.

To furnish good advertising "copy", Wells invented a mythical "Postgraduate College of Electrotherapeutics of St. Louis," and forthwith applied himself to an equally mythical chair of "radiotherapy." His hypothetical professorship in a non-existent college was, like his fictitious name, of use only for business purposes. Says Mr. Adams:

"Rupert Wells, M. D., is very religious—in his advertisements. He loves the church papers. The weeklies with smug and pious editorials and no conscience whatever in the matter of paid advertising, are his green pastures. He is a home and fireside cuddler, is Rupert. He is also a ground-and-lofty liar of the most complete and soul-satisfying description. You can read whole pages of his 'literature' and not come on one single statement tainted with truth."

How Wells Caught His Victims.

Of the "cure" itself and its methods of

exploitation, the official report from the postoffice department says:

"Dupuis causes to be published extensively throughout the country advertisements over the name of Dr. Rupert Wells, giving his address as St. Louis, Missouri, inviting those persons who may believe they are afflicted to write to him for free information about his treatment for the cure of that disease, and in those advertisements makes such statements as these:

"I can cure cancer at home without pain, plaster or operation. I have discovered a new and seemingly unfailing remedy for the deadly cancer. I have made some most astonishing cures. My marvelous radiotized fluid did it. No matter what your condition may be, do not hesitate to write."

He charges \$15.00 per month, his solicitations for the purchase of the treatment are absolutely without inquiry by the advertiser as to the condition of the correspondent, or whether he is actually afflicted with a cancer, or in what form or location the disease may be present, but the correspondent is solicited to buy and take the treatment simply on his own assumption that he may be suffering from the "disease."

Possibilities of Hydrant Water.

The "marvelous radiotized fluid" which formed "Dr. Wells" stock in trade was known as "Radol (Wells)", and came in two forms, for external and for internal use, respectively. Mr. Adams tells us that the analysis for him of this "radium impregnated fluid" disclosed the fact that it contained "exactly as much radium as dishwater does". The investigation of the postoffice authorities confirms the earlier analysis. The investigations disclosed that the fluid for internal use consisted essentially of a weak, acidulated solution of quinin sulphate in water and alcohol in the proportion of about 1 1-3 grains quinin to the ounce of the fluid solution and about 7 per cent alcohol. The fluid for external use was found to be a watery solution containing about 10 per cent. of glycerine and a small quantity of inorganic salts. Both solutions were tested for radioactivity. No such activity was detected in an amount appreciably greater than is to be commonly found in ordinary hydrant water.

The size of this business is indicated by

the report of the postmaster that the first-class mail the week of his report averaged about 70 pieces a day; also by the statement made at the hearing for respondent that he sent out an average of about 25 treatments a day some of which he stated were free. According to this statement, and counting only week days, about 7,800 treatments were sent out in 1908. That year the respondent stated that he sent out over 1,000 free treatments. He was then paid for between 6,500 and 7,000 treatments. The price varied from \$2.50 to \$15.00—but if the average were \$10.00, he was paid in 1908 about \$70,000.

Conclusion: Wells' support was by the religious papers. Hundreds of similar quacks are being thus advertised daily. Of the ten religious papers, representing nearly as many denominations, examined since this question came up, not one was free of the charge. Are not they more to be censured than the quack? For in Wells' case his stuff was, at least; innocuous; while these papers are advertising drugs absolutely harmful, the other is robbing, lying and wrecking lives. Those wrecked by their cocaine, opium, alcohol and chloral that cannot be accommodated by the gallows, penitentiary and insane asylum, can usually get standing room at Keely's, \$25 per _____. And, for the children of such patients now, and those yet to be born, are the inherited neuroses from dipsomania, melancholia and hysteria, to raving maniacs, suicide, epilepsy and death. Who is responsible? Do not such periodicals know these sins shall be visited unto the 3rd and 4th generation? Where is their consistency?

As to the quacks, we must have some admiration for their gaul and gulling, for the reading public, pity and prayer, but for the religious press—— they stand as indicted. "When my love swears she is made of truth, I do believe her, though I know she lies."

REPORT OF CASES ILLUSTRATING THE DIAGNOSTIC VALUE OF X-RAYS.*

By ROBERT W. GIBBES, M. D.,
Columbia, S. C.

Case I: In July of last year a large stout man, weighing 210 pounds, came into my office bringing a letter from Dr. Edmunds, of Ridgeway. Dr. E. stated in his letter that the man had been stabbed in the back while participating in a Christmas frolic in 1907, that the wound had healed promptly, but that since the injury, he had complained constantly of severe pains in his back and throughout both legs. The doctor was almost certain that the pains were due to rheumatism. The patient stated to me that since the stabbing he had been treated most valiantly by many physicians and that always their therapeutics had been directed towards rheumatism. Not obtaining relief from the regular profession, he had turned to the patent medicine man whose rheumatic remedies likewise failed to give relief. About two months before coming to me, some friend suggested to him that all of his troubles were due to the presence in his back of the knife blade which had figured in the X-mas celebration referred to. This idea at once became fixed in his mind and no Emanuel Movement philosophy had been able to remove it. He began to implore the physicians of the locality to operate. Finally, Dr. E., tired of the importunities of the man, sent him to Columbia, thinking that an X-Ray investigation would relieve him of his obsession. As I stated, the man was very large and bulky. On examining his back, I found the scar

which had resulted from the stab wound. There was no pain elicited by pressure in this locality. I placed him on his back with a small plate directly beneath the scar. The developed plate showed, one inch from the shadow of the vertebral border, a clear, narrow streak, two inches in length. This I thought was made by the shadow of the knife blade, with the cutting edge toward the plate and parallel with its long axis. A second exposure was an exact duplicate—the faint, narrow streak showing as before. Considering the fact that the man had had no preparation for such an exposure, the findings were meager, and it was with some misgivings that I wrote Dr. E. that the blade had been located, carefully describing its position. Within 36 hours the doctor wrote that he had recovered the blade and that it was two inches long and that its sharp edge had been directed posteriorly—incidentally, he had (to quote his own words) "discovered a new remedy for rheumatism."

Case II: Some time last spring Dr. Shaw referred to me a young white man with the request that I give him some general treatment for a run down condition. At that time the man was working in a grocery store, but felt weak, depressed, and physically incompetent. The following history of his case was obtained: A few months before he had been thrown to the ground by a runaway horse, the buggy wheel passing over the left side of his back. He was immediately carried to the Columbia Hospital in a condition of great shock. He remained there several weeks, passing at frequent intervals large quantities of blood from his bladder. Finally, this condition ceased and he was discharged from the hospital, but still remained under the care of Dr. Shaw, who,

*Read before the Medical Society of Columbia, Feb. 9, 1909, and published by its request.

I believe, administered the tonics usually prescribed in anaemic and debilitated states. It occurred to me while looking the man over that probably some injury had been done the left kidney, as the buggy wheel had passed directly over that organ. While using the fluoroscope I observed the most beautiful fluoroscopic vision imaginable. Directly in the field, and occupying the entire left renal region, was a large, rounded mass with well-defined borders. No part of the kidney substance was visible save a small portion about the size of an almond, and the capsule whose thin structure surrounded the mass. The spleen was seen to be of normal size and directed downward and anteriorly by pressure of the mass. On passing the fluoroscope to Dr. Boyd, who was standing near, the condition was immediately recognized by him as resulting from an old trauma of the kidney which had been followed by complete disintegration of the renal substance, and an accumulation within the distended capsule of urine or serum. The absence of blood and pus was determined by the character of the fluoroscopic silhouette. These findings were communicated to the surgeon who had had the man under observation while he was at the hospital, and he operated two days later. For some reason, which I have never been able to understand, but which was doubtless satisfactory to him, the operator made his incision directly over the spleen anteriorly. Not finding anything needing surgical attention in that locality he next paid his respects to the left kidney region and found the mass exactly as observed with the fluoroscope.

Case III: Was that of a man whose needs during his last illness had been looked after most inadequately, from a diagnostic, as well as therapeutic, stand-

point, by six physicians, including two of the nose and throat persuasion. Emaciation and difficult deglutition were the symptoms chiefly complained of. The fluoroscopic screen at once made easy a diagnosis of carcinoma in the upper third of the esophagus, and a prognosis of an early death. A radiographic exposure verified vividly the visual findings. My hopeless view of the case did not appeal to the man and his family, and another medical man, who scorned all X-Ray doings, gave a favorable prognostication and saw the case to its end—which came six weeks later from inanition.

Case IV: Was that of a man who, eighteen months before coming to me, had sustained an injury of the leg while enjoying the hospitality of Columbia's street railway system at five cents per trip. Following his injury he had been condemned to bed, plaster cast, and crutches because his physician had diagnosed a fracture of the leg. The "raison d'être" of his visit to me was to secure (at his lawyer's request) a radiogram which was expected to aid him in his suit for \$3,000 against the street railway company. He stated that some months before a jury had considered the merits of his case for eleven hours, eleven jurymen being in favor of a verdict of \$2,500. The wisdom and stickativeness of the twelfth man made of the suit a mistrial. It is sad to relate that a beautiful, but very impolite skiagram showed that the bones in question had never been injured. His case came up the next day and it is needless to say that after its conclusion this man dropped his limp and resumed the work which had known him not for eighteen months. His erstwhile lawyer will doubtless in the future fight shy of the radiogram as contributory evidence, un-

less his client possess more tangible results of a bone injury.

Case V: This man came into my office accompanied by his family physician, a pair of crutches and a plaster of Paris cast—the latter in situ. Several days before the man had sustained some injury of his left leg. The surgeon of the corporation which was concerned in the accident had diagnosticated fracture of some bone or other of the leg and applied his remedy—the cast referred to. Subsequently, the victim's family physician was called in to care for the case, but he declined to do so without an X-ray investigation. Again these marvelous rays came to the aid of corporation and the patient—saving the one from the annoyance and expense of a legal action, the other from the expense and discomfort incident to a prolonged convalescence from an injury which had its only existence in the imaginative faculties of a doctor of medicine. Two days later I saw the man hard at work—sans crutches, sans cast.

Case VI. About two months ago, Dr. W. A. Boyd brought into my office a boy of fourteen years who, a few days before, had fallen and injured his leg below the knee-joint. On examination we found a large swelling below the knee and on the outer aspect of the leg, associated with marked deformity of the limb. Crepitus clearly evident. No evidences of inflammatory action, no discoloration, nor was there any marked pain. It was self evident that the lad had sustained a fracture. However, a radiogram was made in order to make an exact diagnosis and to determine the correct reposition. Before developing the plate, so sure were we that a fracture existed, that Dr. B. wrote prescriptions for plaster of Paris and chlóroform, and informed the patient that he would be on hand the following morning to set the limb. The developed

plate gave us a surprise. There was no sign of bone or joint injury and we were at a loss to explain the phenomena we had observed. On the following day the situation had changed; there was unmistakable evidence of inflammation present, and our diagnosis was changed to that of pus formation next to the bone. An incision 24 hours later set free about one-half pint of thick pus and corrected the great distortion referred to. This to my mind was a remarkable case and proved the unfailing accuracy of the Roentgen rays

Case VII: Was that of a short, thick-set, muscular man, with obscure chest symptoms, referred by Dr. Guignard, who suspected that an aneurism or mediastinal growth was responsible for the patient's subjective symptomatology. There were no physical signs of chest aneurism, but the fluoroscope disclosed a pulsating growth connected apparently with the descending arch of the aorta. A tentative diagnosis of aneurism was made and the patient requested to return for more extended observations. This he did not do, but a few weeks later he died suddenly, and the assumption is that his death was due to cardiac dilatation or rupture of an aneurism. Greater experience at the time of my examination would have made possible a more positive diagnosis.

Case VIII: Some time ago, while a young man was lying upon a table in my workshop, undergoing some local treatment, I was experimenting with a new X-ray tube. He said to me: "Doctor, take a look at the bones of my broken leg." I held the leg he indicated before the light and on seeing that the bones showed no evidence of a former fracture, I dropped that particular limb and said that he was mistaken in the leg. The other leg was likewise normal. No comment was made and the young man

believes today that his detention from business for a period of ten weeks and the great expense thereby incurred, were the legitimate outcome of a broken limb. Not for one moment do I believe that the reputable physician who attended this man deliberately lied to him, but I cannot avoid the conviction that he did a gross injustice to his patient by not availing himself of a method which would have permitted him to make a diagnosis and not a guess.

Case IX: About ten days ago an attorney of Columbia sent to me for examination a man whose history presented the following facts: Nearly two years ago, while in the employ of a railroad company, he had sustained a violent fall which resulted in a fracture of the seventh rib on the right side. He was attended by the railroad's surgeon, who finally dismissed him with the report that he had recovered from his injuries. The man returned to work, but on account of a peculiar distress in his chest, associated with a cough and general weakness, he discontinued work and subsequently entered suit against the company. On making a physical examination by the usual methods, I found that the rib referred to had healed properly, and that there were no signs pointing to disease of the lungs, pleura or cardium. After giving considerable study to this case I concluded that the man was a malingerer, and that he, with the connivance of his lawyer (innocent though the latter may have been) were attempting to use me in muleting the railway company. However, I told the man to call again and I would go over his chest with the fluoroscope. At this examination I observed that the damaged rib was guiltless of producing pressure effects and that the man's subjective symptoms could not be attributed to it. But what I did observe and con-

sider to be the cause of his trouble, was an aneurism of the aorta, about the size of a small orange. Feeling that this aneurism could not have resulted from the trauma the man had sustained nearly two years ago, I declined to be connected with the case as a medical witness. I was informed just the other day by the attorney in the case that the services of another physician, who was not concerned about aneurisms, had been secured, and that a verdict of \$800.00 had been rendered by the Federal Court. The services of a Roentgenologist in this case would have meant the saving of just \$800.00 to the railway company. This attorney also stated to me that had his client been a white man instead of a negro, a verdict of \$10,000 could have been obtained easily.

MEDICAL ETHICS.

By F. L. POTTS, M. D.,
Spartanburg, S. C.

The ethics of any pursuit or profession would in the broad sense of that term embrace all the great and essential elements of the particular subject, were a full discussion attempted, but as I understand it, our purpose is only to treat some of the more ordinary and everyday features of ethics as they affect us in our professional relationship one to another. By ethics, we often gather the meaning as signifying only a keen observance of the laws governing the usual trespasses made by one member of the professional fraternity upon the territory of another, or rather the law regulating the methods employed in gaining patronage, and the effect of such methods upon the financial features of the profession. But there is a great

*Read before the Spartanburg County Medical Society, January 29, 1909.

deal more than this to be understood by the term "ethics", for certain it is that there is a great deal more in the pursuit of any profession than the gaining of a livelihood or even the gathering of a temporal fortune, or making a bubble reputation. And no fraternity can bid for a higher or more sacred place in the various scales of meaning applied to this profound term than the medical brotherhood, for the physician's field of labor carries him into every walk and grade of human life. There is no class or clan to be selected by him, nor is there any realm or condition from which he can be excluded. It is a vocation that has no financial, social or intellectual bounds, but embraces within its range all who are liable to human ills, and that spares none. So it strikes me that our construction of this term should leap across the narrow confines within which it so long has been kept, in its general acceptation, and extend to it the domain of our personal equation in the progress and civilization of the world, our mutual interest and sympathy for each other as disciples of a great and universal cause our zeal in the combined and individual efforts that we should make for new discoveries, in a calling that so greatly and so seriously involves the physical destiny of mankind.

So, if you will pardon me for thus calling your attention from the meat and bread element which has hitherto been the most absorbing phase of our ethical discussion, I will in a feeble way ask your attention to a few of the more important matters that should engage our attention. One of these is frankness with ourselves and our patients in cases of doubtful diagnosis, as well as in cases of such difficulty as to be beyond our ability to manage, and in this we will be fair with our fellow doctors, and ob-

serve one of the essential rules of good ethics. Along with frankness and close akin to it is unselfishness in sharing with our fellow-doctors the laurels of our heroic operations and phenomenal recoveries, for without it we frequently prevent one of us from receiving a full measure of credit and at the same time keep the embers of estrangement still aglow, thus retarding the general advance of our cause. All this restraining and retarding influence is going on to a considerable extent when such great pleasure could be realized in meeting our fellow-doctors frankly and unselfishly, withholding nothing either in the way of ignorance and the seeking of information, or of newly acquired knowledge of new methods and the results, and, imparting these new powers to the medical fraternity, thus promote the happiness of the world. Just here I would remark that whatever peculiar interest we have in our profession from a physician's standpoint, nothing should exceed our purpose to do the greatest possible good to humanity, for this is the greatest debt that any man, whatever his lot in life, owes as the price of his citizenship and the sphere in which he is permitted to live and act.

It has been said that jealousy is an agency of inspiration, prompting all who have it to more vigorous efforts, but it is to be feared that frequently these strenuous efforts prompted by such a sentiment are miscarried and never reach the destination of a well-defined, noble purpose. So it appears to me better for us all to be aware of jealousy and the part she plays in our work.* Should all jealousy be inclined toward undefiled excellency, it would not be worth while to sound a warning note, but jealousy usually looks toward personal emolument and eenal gain. However much we

may exert ourselves to observe and enforce a strictly decorum in the medical profession with the sole purpose in view of only the prevention of encroachment of one physician on the rights and patronage of another, we must expect our efforts to avail of but small results; but when we have for our chief motive the higher and better purpose of aiding and assisting each other in all these nobler aims, then we may hope to see the ethics of medical science and medical practice assume the form and force of moral dignity attended by real substantial results. No tendency is an ethical one which has for its motive force the attainment of a sordid or selfish benefit in the end, and such a character of ethics must soon fall by reason of its own disintegration and poisonous self-destruction.

When you have a good idea, nothing should afford so much pleasure as to impart it to some brother doctor; and on the other hand nothing should afford more pleasure than to receive in turn a new idea from your brother and to discuss with him the advantages or disadvantages of the same. But, sadly, we too often hear these things with a jealous mental reservation and pass them by as mere adventures and crush the research in its infancy without a fair and impartial trial.

Frequently, too, there are times when an honest confession and a simple request for a little aid would relieve one of great misdirection of energy and possibly of serious mental self-embarrassment and regret, whereas a lack of frankness thus forbids that we avail ourselves of what in most cases, if not all, would be so readily and willingly granted. Then again our selfishness in trying to monopolize the practice of our community causes us to worry ourselves to death

and do countless things that are almost wholly unnecessary, rendering us weaker mentally, morally, physically and financially, instead of taking these things easily and allowing the other man to have a hand by realizing that today is not the only time.

The only way by which we may hope to improve our ethics is to remove the cause that produces our present bad or defective ethics, and in order to do this we must be allowed to assume in the beginning that we have not to deal with any practice grabbers, for surely at this late day we can hope that these are no more with us, for the general moral atmosphere is gradually becoming quite uncomfortable for such and they must soon go. Therefore we are practically left to deal with our own personal irregularities of disposition and character, and here is the rub with us all, for as I have already said, we approach men and women of all sorts and kinds through all the various avenues of humanity, having no restrictions or limitations, and of course this requires of us a uniform and never deserting quality, viz: to be good, which means to be gentlemen. This very likely sounds a little far-fetched in a discussion on medical ethics, but nevertheless it bears the most direct relation, as I see it, to the real cause of a bad state of ethics in our organization, for our only remedy is in the removal of the cause, and the most effective method of removing the cause will be to instill into the individual member of the entire organization a stronger desire for real excellence and enduring superiority, and not to direct our forces against the results of a deficient and selfish aim, on the part of some or many of the whole profession.

It is an elementary principle in our own work that if we find a patient suf-

fering from some cause we attempt to exterminate or master the cause that produces the ill rather than to direct our attention at any length to the various features of the effect. So with us today, we might go on in countless details of the different sorts and kinds of ethical violations, and as often as we down one, another will arise from the same source, but when once we have turned our battle line against the cause it will not be long 'till we begin to realize good and lasting results. There is so much that might be done to augment the beauty and attractiveness of our profession, to increase the zeal of research and investigation, to incite a keen desire for a broader and deeper knowledge of our respective special branches, that it is difficult to designate more than a few features of importance in the correction of causes productive of bad ethics. But this we may always be certain of, and that is that if we are willing to do unto others as we would have them do unto us, we will not go very wide of the mark of what correct ethics would require at our hands. Do the best you can in the light of what you perceive to be right, and you have done all that can reasonably be expected of you, for angels can do no more, but be sure that you do not place too large a question mark after the expression of what you understand to be right, for there is much latitude in the plane of human discretion.

It is true that much can be done by way of specific rules in the way of making a proper division of our respective works and the fixing of uniform fees, etc., but after all we are left eventually to decide by the golden rule what, under certain circumstances, should be done, and conscience alone can verify our solution of the problem. But invariably, if you will devote yourself more particu-

larly to the acquirement of the great truths of medical science and engage your energies in improving you, the man, and you, the doctor, instead of studying how you can manage to convert your efforts into the most material gain, the fruition of your labor will be easier and more bounteous and you will have ethical perplexities in smaller numbers and of less grave consequence. "Know thyself" is one of the wisest invocations ever addressed to a frail human being, and the more heedful we can be of this great moral precept, the less we have to dread in the exterior world.

However, I will suggest that in the future we have frequent discussions and expressions of opinions on this subject, for it is a matter about which no particular physician should have a patent right of exclusive and sole opinion. There are too many interests to be conserved to drop the matter with the sentiment of any one man. And whenever we or any of us sees anything approaching the ethical limit that requires correction, let us not hesitate to make the matter known to this convention, in order that we may always have a vigilant watch over this, the most important and sacred feature embraced in the tenets of our professional fraternity. There is nothing to be gained by a mock dignity or false veneration, but to be a doctor is a serious thing and the man who does not attach grave import to the duties and responsibilities that he has assumed when he cast his lot with those who must endeavor to heal the suffering masses, should have found his place in some other sphere of action; for earnest, manly zeal is always implied in the requirements of a successful practitioner of medicine.

THE ADVANTAGES OF ORGANIZATION.*

By W. H. DIAL, M. D.,
Laurens, S. C.

Organization is the order of the day in this history making period. Organized religion, organized education, organized politics, organized capital, and organized labor are seen, heard, and read of at all times and on all sides. Why is this so? Because "in union there is strength." We can do nothing, or but very little, by individual effort alone towards the accomplishment of great objects or purposes in any line, but on the other hand we can reach almost any ends or purposes to which we persistently bend our united efforts. All classes are realizing this. This being the case, then, is organization desirable for medical men? None we think will deny that it is.

What can be accomplished, or what are the objects and purposes of Medical Organizations, more especially county medical societies?

1st: By discussion of subjects pertaining to diseases and exchanging of ideas, opinions, and experiences we better prepare ourselves for the faithful and efficient discharge of the responsible duties that daily confront us in the relief of suffering humanity.

2nd. We become better acquainted with each other, producing greater confidence, cementing and uniting us in a closer bond of brotherly feeling and sympathy; understanding better each others acts and purposes; causing less misunderstanding, harsh criticism, and distrust.

3rd: We take greater pride in our chosen life work, the noblest of all callings; read and study more, observe

*Read before Laurens County Medical Society, March 22nd, 1909.

closer, and keep better abreast of the advanced thoughts of the day; supply ourselves with better, if not later, books and instruments. In short, to avoid ruts and keep up-to-date.

4th: What is of no small importance, we learn to protect ourselves against unworthy dead-head patients. "Self preservation is the first law of nature." But how little are we protecting ourselves and families against such? In union or organization we can manage to secure this, and still be the great humanitarians that we are. The price of living has greatly increased in the last few years, and all labor demands and commands much better wages than heretofore. Then why not the physician, who is at the public's beck and call at any hour of the day or night, through rain or shine, heat or cold? Intelligence demands salary. There is no trade, calling, or profession today, that requires more intelligence, or more than one-half the time in preparation for his life work than that of a physician. Then why belittle your calling, and cause the public to think the less of it by you, yourselves, carelessly regarding it? Do your work faithfully and honestly, then present your bill like a business man. Respect yourselves and your work, then the public will be bound to do so.

5th: Lastly, to be recognized, or to become a member of the great medical organizations of both nation and state it is necessary that you come in through your county society. Do you prefer being left out on the turbulent waves to pull a lone oar, or step in the boat, and with united effort, pull for a better shore.

How then can you make your county medical society a success, one to be proud of? Join it with enthusiasm. Be a live wire in it. Let everybody know

that you are in earnest. Respond to all its duties; attend punctually all its meetings; bring up clinical cases; have something to say, clear and to the point, if possible. Be democratic; abide by the rule of the majority, whether they agree with your views or not. Stand up for honesty, principle, and right. Deal justly with your brother physicians at all times, whether it be on the streets, in the homes of the rich, or the hovels of the poor. Let your motto be, "Do unto others as I would have them do unto me."

With such county medical societies, filled with such members, thoroughly organized, and in earnest for the betterment of self as well as humanity, what could not be accomplished in Laurens county, in South Carolina, and in these United States, in stamping out infectious and contagious disease, patent medicines, and the quackery that is now so freely sucking the life blood of our people?

It is not too early to begin to lay your plans for attending the annual meeting of the state association at Summerville, April 21 and 22, next. House of Delegates convenes April 20.

ACUTE OTITIS MEDIA.*

By E. W. CARPENTER, M. D.,
Greenville, S. C.

This is almost synonymous with ear ache and I have selected this subject for two reasons. first, that I might profit by a thoughtful review of the subject; and secondly, because I hope to shed some light for the brother who "ponders in the midnight dreary" over how to relieve that dreadful ear ache. We can all recall how earnest and futile have been our efforts on such occasions.

*Read before the Fourth District Medical Association, at Seneca, Jan. 25, 1909.

I will not enter into a detailed discussion of the treatment or the complications which may arise, but will limit my remarks to the early stages of acute inflammation of the middle ear.

In my reference to this subject I do not exclude those acute congestive conditions of the tube but rather include them for once they have passed the stage of congestion, inflammations of the Eustachian tube are so closely related to altered conditions in the tympanum that it is not practical here to draw the line.

There is no way of knowing whether resolution will begin in a few hours or the attack proceed to suppuration, so it is safer to treat all cases in the light of eventual suppuration. In order to relieve a pathological condition it is advantageous to know its cause. In this condition the large majority owe their existence to abnormalities in the nose or throat, these may be acute or chronic. Among the acute causes the infectious diseases stand first; scarlet fever and influenza stand conspicuously in the front rank; measles, simple Rhinopharyngitis, exposure to wet and cold, forcibly, blowing the nose, are a few other acute causes. Among the chronic causes, Adenoids, are the chief sinners. If we eliminate abnormal conditions in the upper respiratory tract, we will obviate the cause of perhaps 90 per cent. of the cases. This is due to the relation of the Eustachian tube and its orifice to the respiratory apparatus. Its opening is situated in the path of the inspiratory current, thus exposing it to much of the extraneous material which has escaped the vigilance of the nasal mucous membrane. It is also involved as a result of continuity of tissue in the extension of inflammation from neighboring structures. It is often encroached on by enlarged pharyn-

geal tonsils. Its orifice is large in childhood, the direction of the tube is in a plane lower than its pharyngeal opening, the tympanum acting as a reservoir at the bottom of this patulas tube, until perhaps 3 years of age. Until then the floor of the middle ear is on a lower lever than the pharyngeal mouth of the tube. Thus gravity is added to the frequent presence of catarrhal infections in childhood, making that age the favorite period for this disease. Aside from the mere presence of adenoids which disturbs the circulation of the tube, we have the locality bathed in retained secretions, which harbor infection. Thus you see the Eustachian orifice has a perilous position. These are some of the commoner causes. There are many others, some of which are at times so obscure that one cannot account for them. In view of the fact that we should treat all cases as if they would progress to a purulent culmination, there are certain basic principals that should guide us in the treatment of this malady, adapting them to the individual case, and personality of the doctor. Remember, you are treating an acute inflammatory process and apply the cardinal remedies, rest, heat, and displetion, employ posture and strive to remove or combat the cause. The patient should be put in bed with the head and shoulders elevated, thus lessening the force of the heart's action on the inflamed area. Heat, in the form of frequent irrigation, is very soothing, always use an antiseptic that the canal may be clean, for if we should have a ruptured membrane from a distention by serum, we thus lessen the chances of infection by that route and decrease the danger of complications. While heat does not necessarily increase the congestion, it certainly augments the flow of blood through the involved

area, thus giving the anti-bactericidal elements in that fluid an opportunity to act on the disturbing factors, and thereby causing the attack to subside, giving us the impression that an acute inflammatory attack has been aborted. Besides posture and heat always flush the intestinal canal, and nothing is generally so efficient as calomel, unless it be in those cases where we have an inflammatory complication in the respiratory apparatus, when the effect of castor oil is very soothing. These should be followed by efficient doses of some saliene for its depleting effect.

Examine the nose and pharynx as soon as possible and remove any obstructions such as foreign bodies in the nose or adenoids if they are a causative factor, by their obstructive function or through inflammatory extension. I do not see any valid reason why we should not remove these when the danger signals are first raised, rather than delay until we have ruptured tympanum and generous distribution of pus throughout an extensive area.

The arguments for early removal of offending adenoids are, 1st, their removal is at times disastrous to healthy ears, therefore there exists an opportune time during the period of an acute otitis medis to relieve complications by a free incision of the drum, rather than risk the necessity of a second incision as a result of delayed operation; 2nd, free bleeding which follows the removal of adenoids depletes the tubal circulation; 3rd, promotes tubal drainage and removes source of infection as all of us know who have treated chr. o. m. in infancy.

Do not give morphine unless absolutely demanded; it masks the symptoms and gives a false sense of security. Pain is one of the chief indications that

influences our judgment in the management of these cases. Always inspect the drum membrane, paying especial attention to the upper segment, for here we generally have the first indication of congestion. One's attitude to incision is of paramount importance in the termination of the attack, for when we procrastinate and permit pus to accumulate under such pressure that rupture takes place, we allow the patient to run the gauntlet of antrum and general mastoid infection plus a round hole in the drum, which is not generally best situated for drainage, and which often does not heal because the edges cannot approximate. Thus the middle ear is forever subjected to reinfection through the permanent opening, whereas an incision done early and with necessary precautions of cleanliness can do no harm. It has clean margins which lie in contact and may heal too rapidly, thereby interfering with drainage. Do not let the popular dread of surgical interference with the drum have the slightest influence on your readiness to perform ample paracentesis.

If you ask when is the most appropriate time, I cannot answer dogmatically, but prefer to be radical and say that it cannot be done too early. The classic indications are about as follows; if pain has continued 12 hours and is not abating, with marked redness and bulging of the drum membrane in whole or part, swelling of the post canal wall, and mastoid tenderness developing.

Do not be disappointed if pus does not immediately appear in the incision: you have made no mistake and if it does not appear at all, the depletion often serves to correct the process before pus formation. As a rule pus does show itself in a few hours and pain disappears.

I wish to reiterate that a clean paracentesis in any stage of the lesion can

do no harm and often prevents serious complications.

I have said nothing about the numerous and often "dirty ear drops" so frequently employed. As a whole I can only condemn them for those in highest favor cannot effect the slightest relief. Laudanum, sweet oil, cocaine, roasted onions, tobacco smoke, adrenalin, and others only act favorably when hot, as medicaments; they do not penetrate the epithelial layer and cannot have any more effect than water. Poultices are to be especially condemned because they lower the tissue vitality and macerate the skin to no purpose. The only iota of defense for their use is the heat they carry, which can be used to much greater advantage by applying copious quantities of the hot sterile water.

I have not mentioned one remedy, which is a valuable one, and it is being resurrected from an undeserved obscurity. This is blood letting; if two to four ounces are abstracted from the front of the trogus early in the attack, pain often disappears at once, and the disease is arrested. It is not my intention to review the symptoms, except to comment on the temperature. No dependence can be placed on it as an indicator. It is usually present, but may be absent, and in infants may reach 106 degrees. Of course it is a guide to certain complications, but I have endeavored to confine my remarks to an acute process limited to the middle ear.

The meeting in Summerville, April 20-22, next, will be the biggest and best ever held by our state association. There is not a doctor in the state who can afford to absent himself.

From any standpoint you cannot afford to miss the meeting in Summerville.

Address

THE GREAT WHITE PLAGUE*

By O. B. MAYER, M. D.,
Newberry, S. C.

Mr. Chairman, Ladies and Gentlemen:

I thank you for the honor of being present tonight, to take part in this anti-tuberculosis meeting. I believe tuberculosis the most important question of this time, and when the history of the twentieth century shall have been recorded, with its Marconi wireless telegraphy and air-ships and other feats of progress, there will have to be recorded one other achievement that is second to none of these and that is the cure and prevention of tuberculosis. The conquest of this great devastator of human health and destroyer of human life will ever be regarded as one of the greatest that has ever been made.

For a long, long time the great white plague has destroyed its hundreds of thousands yearly and mankind was helpless—not that there was no cure, for one has always been present, but because it was not recognized; and today, when this remedy has become known by the illumination which medical science has shed along its course, its usefulness is curtailed by the fact that so few are aware what can be done to stop the dread disease.

I understand you are here tonight to form an anti-tuberculosis league, to wage war on this great enemy of our race. None have ever gathered in a nobler cause, nor have any ever enlisted in an army that can rescue more than this one. Armies that have fought for the preservation and protection of human life have had to march far away and endure hardships and dangers, as did those who fought for Cuba; but the army that you are to form a part of does not have to leave home, nor endure any hardships or dangers. The enemy you are to fight threatens the lives of five hundred thousand and of your fellowmen in America alone, and will destroy almost all of them unless a way of escape is made known to them.

The battle against tuberculosis has begun

*Address delivered before the Edgefield Antituberculosis League, March, 1909.

in earnest, and in the right way. There is nothing that can equal organization in fighting anything; and the world-wide organization of the people into an army to fight tuberculosis will be successful.

That you may have some idea of the magnitude and importance of the task before you, let me give you some facts about this universal and fatal malady:

It is estimated that one hundred thousand of our fellow men die in America each year, and that in our own state at least fifteen hundred die yearly, and that there are now five hundred thousand consumptives in America, each one of whom is expectorating at least one million germs a day. When you remember that this disease is communicable, and that each one of these five hundred thousand persons is a distributing point, it at once becomes a question of the greatest importance: how can we save these unfortunate fellowmen of ours, and in saving them save ourselves?

It was established by Robert Koch, of Berlin, that tuberculosis is caused by a germ. This discovery deservedly made him one of the famous men of the times; and as this knowledge pointed the way to cure this dreadful disease, as well as to prevent its spread, his name should be, and no doubt will be, honored as long as time shall last. The establishment of the fact that this germ is the cause of consumption, that is, no case of consumption can develop without the entrance of this germ into the human body, is equaled in importance by the fact that this germ only leaves the body, in cases of consumption of the lungs, by expectoration. This germ is conveyed into the human body by infected food and drink, but more frequently by dust that has been infected by the expectoration of the consumptive, who, not knowing the danger of his expectoration, infects his surroundings with it, and which is conveyed into the lungs of whosoever breathes it. The danger of contracting this disease by the use of the dishes and cups used by those infected with it should be universally known and carefully guarded against.

This germ has been found in every part of the world that is inhabited by man, and is the most difficult of all germs to destroy; freezing does not kill it, and it seems to live indefinitely in favorable places. Strong

chemicals often fail to destroy it. The only certain ways known to destroy it is by boiling if for four minutes, and by exposure to sunshine, which kills it in two minutes. We cannot lay too much emphasis on the important fact that sunshine is the most certain means that is available for the general destruction of this germ. If it was not for the great destructive power of the universal sunshine, our world would have been so thoroughly infected with germs that most of the human race would have been swept away. An important lesson is here taught by this fact. The homes that have shut out the sunshine to protect carpets and curtains have placed its inmates in great peril of contracting tuberculosis. This germ is not only found in all parts of the inhabited globe, but it attacks all forms of animal life. A foe that is universal, and is so difficult to destroy, certainly is one that seems to be almost unconquerable. These facts, which appear almost insurmountable, only add honor and glory to the successful battle that has been won against this germ, entrenched in the human body as tuberculosis.

Although this germ is invisible to the naked eye, and is only visible after staining through the microscope, it is nevertheless a distinct form of life as much so as an elephant or a fly, and under favorable circumstances has the power of reproducing its kind.

Like most of the disease producing germs this one does not, nor cannot propagate itself outside the body of some animal, and while it may maintain its existence it cannot multiply. It is interesting to know it does multiply after it enters the body of some animal; and to illustrate how this germ produces such rapid and widespread destruction in the body, I state for the benefit of those who have no knowledge of bacteriology that they multiply by division. That is, one germ divides in half, and these halves grow rapidly and continuously, and as it will only take 16 times of this arithmetical division to produce a million germs, you see at once what a monster we have to contend with.

Having shown the strength of our enemy, let us consider the forces that are to contend against him. The normal human blood possesses germicidal and curative powers, and contains at least two parts that are effective in the fight against disease. The

blood, as you know, contains 80 per cent. of water, which holds a number of substances in solution, also a great number of round bodies called cells, red and white ones. This fluid part of the blood is known as serum, and is the antidote for many diseases. The white cells also are very effective fighters, and under the microscope can be seen in the fight with germs, taking them into their substances and destroying them. These are the chief means of recovery from germ diseases. A most brilliant illustration of the curative power of blood serum is to be found in antitoxin for diphtheria, which is obtained in the blood serum of the horse. It is evident then that whatever assists in maintaining the blood in its normal condition helps to cure and prevent disease and whatever produces any abnormality of the blood makes us more liable to contract diseases and less able to overcome them. There is nothing that assists in making normal blood more than pure food, pure air and sunshine; indeed, these are absolutely necessary.

From what I have stated, it is now clear that to prevent the spread of tuberculosis we must prevent the passage of this germ from those affected with it to the bodies of those who are not; and as this germ only escapes by the expectoration in lung cases, all we have to do is to collect all the sputum from the cases and destroy it. For this purpose, sputum-flasks have been devised that can be carried in the pockets, and all the expectoration successfully collected and deposited in the flask, and this boiled at a convenient time, which will successfully destroy the germ. This will prevent the communication of tuberculosis of the lungs from one person to another. Any other means of saving the expectoration until it can be destroyed may be used, but the flask spittoon seems to me, however, the most perfect.

The dust problem is one of the most important in the prevention of this disease, and is the hardest one. No ingenuity of man can ever prevent dust; and until some future time this part of the means of prevention will be imperfect. It is only dust laden with germs that is dangerous. If no germs are allowed to infect the surroundings by consumptives the danger of contracting tuberculosis by dust will be reduced to a minimum.

As has already been stated, the consump-

tive germ attacks all animals, and, therefore, the pet dog and pet cat are such dangerous means for the spread of this disease that they must be abolished, or their owners, as well as their friends, must continue to run the risk of tuberculosis as well as hydrophobia.

This brings us to the consideration of the means to be adopted for the management of the white plague; and, from what I have already said about this disease, you will anticipate the treatment which is so simple and successful. Sunshine, pure air and good food, with rest, will cure most of the cases of pulmonary consumption, the proportion of recoveries depending upon the faithfulness with which these means are used and the progress the disease has made before the proper treatment is begun. From what has been said, you will understand that much depends on the early recognition of the disease; not only to save the persons infected, but also to prevent them from infecting others.

Here is illustrated one of the greatest achievements medical science has ever made. It will sound like a fairy tale to tell you that by means of two or three drops of a fluid placed in the eye we can tell whether the person has tuberculosis or not. This test with tuberculosis will detect the disease, both in man and in animals, in the earliest stage—before there is any manifestation of the disease.

The great success which has followed the efforts of the Episcopal Emmanuel Church society, of Boston, in treating tuberculosis of the lungs by this outdoor method, with its sunshine and pure air and good food and bodily rest, should encourage the efforts of the people of the South, who have more sunshine and pure air than any people in the world. If they can cure seventy-five per cent. of their cases, we ought to have a larger per cent. of recoveries.

It will do little good to let our efforts end with advice. I believe the object of your league will be almost accomplished, if you will make one demonstration of this method of curing tuberculosis by treating one case by out-door air, sunshine and bodily rest.

I wish to impress upon you the importance of these statements about tuberculosis; they have now been so abundantly proved

that no one questions the curability of this once so fatal disease by pure, dustless air and sunshine. The city of Detroit has verified the efficacy of the means for the prevention of the spread of this disease by reducing the number of new cases in that city forty per cent. in one year.

The present prevalence and mortality of tuberculosis are due to ignorance and indifference, for it only requires earnestness of purpose in carrying out the measures that prevent their spread; and faithfulness in the use of the means for its cure, will make tuberculosis not only a rare disease, but one that is seldom fatal.

Remember: "The knowledge we use is the only real knowledge that has life and growth about it, and that can convert itself into real power; all the rest hangs like dust about the brain, or dries up like rain drops off the stones."

Personal

Dr. L. L. Campbell has located in Piedmont to practice.

Dr. G. A. Neuffer, of Abbeville, has been re-elected alderman in that thriving little city.

Dr. W. D. Grigsby has moved from Hendersonville, S. C., to Blaney, and has joined the Kershaw County Medical Society.

Dr. B. B. Steedly, of Gaffney, has returned home after several month's stay in the northern hospitals and clinics doing postgraduate work.

Twenty Physicians of Columbia have taken over active management of the Columbia Hospital, the ladies' association finding the burden too heavy for them.

Dr. Mary R. Baker, of Columbia, has returned home, after several months study in the hospitals and laboratories in the north. Hereafter she will devote her entire time to special work including pathology and bacteriology.

Dr. J. E. W. Haile, of Rock Hill, on behalf of the Association of Surgeons of the Southern Railway at the recent meeting in Jacksonville, presented a handsome gold watch and chain to Chief Surgeon W. A. Applegate, who sails for Europe this month.

Obituary

C. L. CLAWSON, M. D.

Dr. C. L. Clawson passed away at his home in Richburg Saturday morning at an early hour, March 28th, after an illness of several weeks.

Dr. Clawson was a native of Fort Mill Township, in York County, and was in his ninetieth year. He moved to Chester in 1873, and practiced medicine and engaged in the drug business there until about fifteen years ago, when he moved to Richburg, where he had since lived. He was twice married, his first wife being a Miss Williams, of York County, by whom he had three children, only one of whom is now living, Mr. T. W. Clawson, formerly in the newspaper business here and in Wilmington, N. C., and more lately associated with his father in the gold mining business, near Fort Mill. Dr. Clawson's second wife was Miss May Belle McClintock, of this city, who survives him with three children.

County Societies

AIKEN.

The regular monthly meeting of the Aiken County Medical Society was held on Monday, April 5th. An average attendance was present. The topic for discussion was "Locomotor Ataxia." Its etiology and pathology were discussed by the writer, while Dr. Harry H. Wyman read a paper upon the symptomatology and treatment. One of the members presented a case of perplexing symptoms which he and one or two other physicians out of the county had pronounced tabes dorsalis. While there was no positive diagnosis made, as it was impossible to clear up several points without the aid of the microscope, it was generally agreed that it was not tabes. Chronic malarial poisoning, hookworm and amoebic dysentery were suggested as the trouble. A communication from Dr. Whitlock, delegate-elect to the State Association meeting at Summerville, announced his inability to attend. Thereupon Dr. A. A. Walden was named in his stead.

Aiken county hopes to send a large number of men to the State Association. A committee consisting of Drs. H. H. Wyman, Sr., T. C. Stone and H. J. Ray, D. D. S., was appointed to arrange for the addresses of Dr. McCormack. Drs. C. A. Teague and T. G. Croft are away in attendance upon the meeting of the Southern Railway Surgeons at Jacksonville.

Farewell, till we meet at Summerville.—Theo. A. Quattlebaum, M. D., Sec'y.

CLARENDON.

The regular quarterly meeting of the Clarendon County Medical Association was held March 24, at Dr. W. M. Brockinton's office. Dr. W. M. Brockinton, the newly elected president, presided.

Dr. S. C. Baker of the Sumter County Medical Society and president of the S. C. Medical Association read a very instructive and interesting paper on cholecystitis and gall stones. He discussed the symptomatology and pathology in a very able manner and reported two cases upon which he had operated. He demonstrated the operation and surgical anatomy by drawings and explained the technique of the operation in a highly creditable manner.

Dr. F. M. Dwight, of Wedgefield, the district councilor of the 7th district was present and addressed the association on the importance of the general practitioner writing papers for, and taking part in the discussion of papers at, the state association meetings and not leaving everything to be monopolized by the specialists.

The success of the county society in his opinion depended in a great measure on the county secretary, and he urged the members to write papers for the state association and Journal.

Dr. G. L. Dickson discussed the treatment of tympanites of typhoid fever and was followed by Dr. Geiger, Dwight and Baker.

The Clarendon County Medical Association is in a very prosperous condition. Every legal practitioner in the county is enrolled with the exception of one and he is a member of another county society.

Dr. Oscar Nettles of Foreston, now one of the internes of the Roper Hospital, Charleston, was also present.—Chas. B. Geiger, M. D., Sec'y.

DORCHESTER.

The regular meeting of the Dorchester County Medical Association was held on Monday, April 5th, at Holly Hill, Berkeley county. We believe in expansion, and the Medical Dorchester County embraces not only Dorchester, but parts of Berkeley and Orangeburg.

The genial "Dr. John" being absent, the vice-president, "Dr. Dick", presided. The attendance was small, consisting of Drs. J. L. B. Gilmore, A. R. Johnston, S. T. Lea, W. P. Shuler, E. W. Simons, and S. P. Wells.

Dr. Julius A. Parker, essayist, apparently not having yet emerged from "the sticks," and the alternate from the next station failing to put in an appearance, we were left without a formal paper, but a case of concealed uterine hemorrhage being reported, furnished the subject for discussion which was participated in by all present.

The local physicians certainly gave the visitors a delightful day, and Holly Hill will long be remembered, not on account of the trees of that name, or a hill, for neither holly trees nor hills were in evidence, but as a progressive and hospitable place pleasant to visit.

The next meeting will be at Greer, where it is hoped a large number of members will assemble on Monday, May 3rd, at 1 p. m., to talk over the great benefits obtained at the big state meeting then two weeks passed.—Edmund W. Simons, M. D., Secretary.

LAURENS.

The Laurens County Medical Association met Monday afternoon, March 22, at Gray's hotel in its regular monthly meeting. Dr. W. D. Ferguson, who has held the position of first vice-president, was elected president to succeed Dr. S. F. Blakley of Ora, who has moved to Spartanburg. The papers at this meeting were read by Dr. W. H. Dial and Dr. R. E. Hughes, the first being on general lines for the good of the society, and the paper of Dr. Hughes' on "Fake Medicine Advertisements and the Religious Press." Dr. Hughes advanced some excellent argument against this misuse of the columns of the religious papers, and the impositions made upon them by the advertising agencies and did so in no uncertain

terms. Many comments have been heard on the paper. (See elsewhere this issue).

At the meeting Monday Drs. J. H. Teague and T. L. W. Bailey were elected delegates to the State Medical Association, which meets in April at Summerville. These representatives were instructed to invite the association to meet in Laurens next year.

SPARTANBURG.

The Spartanburg County Medical Society held its regular meeting on the last Friday in March. Unfortunately, the attendance was not quite so large as at the other meetings this year. An excellent program was carried out, Dr. J. J. Lindsey reading a very fine paper on dietetic inefficiency, the discussion being led by Dr. J. F. Williams.

The talk and demonstration by our pathologist C. B. Waller, Ph. D., assisted by Dr. J. Ed. Edwards, proved conclusively to the society what an important feature of our work is this laboratory, and the number of microscopes and variety of slides under them for demonstration would do credit to a laboratory working on a large scale.

Dr. S. F. Blakely, ex-president of the Laurens County Medical Society, was present at this meeting and became a member of our society by transfer. Dr. S. J. Taylor, of Clifton, made application for membership. The following were appointed alternates to the Summerville meeting: Dr. S. T. D. Lancaster, Dr. W. A. Smith and Dr. Geo. E. Thompson. Quite a number from here expect to go to Summerville.—L. Rosa H. Gantt, M. D., Secretary.

Correspondence**JUSTICE.**

To the Editor: In a recent issue of the Medical Standard an item appears which touches the key note on an important matter in the following words:

Justice.

"W. B. Atkinson! This venerable man was for many years the honored, respected and loved secretary of the A. M. A. Many a doctor who reads these words will remember his kindly ways, his unfailing courtesy—a man who never could find it in his heart to refuse a favor to anybody. Dr. Atkinson is now living in comparative poverty,

in advanced age. It would be a kindly act to pension the deserving old secretary for his few remaining years. The treasury of the A. M. A. is full to overflowing with the voluntary contributions of thousands of physicians. We could well afford to grant him one hundred dollars a month, in recognition of the services he rendered us during the many lean years, when his personal influence meant much to the struggling association. Were such a proposition to be made in the general meeting of the association it would show how its justice was appreciated. Shall it not be made?"—

With this we heartily agree. We shall ourselves take the matter up editorially reprinting the item under the caption "Justice" and suggesting that in all justice to this noble man who served the Association so faithfully and well for so many years you do the same thing.

Let us see that his final days are provided for by the profession as the final days of a noble man like Dr. Atkinson who has sacrificed his life and his opportunities to the profession should be.—W. C. Abbott.

News and Miscellany

SENN CLUB.

At the meeting of the Senn Club, held March 26th, it was decided to perpetuate the memory of Nicholas Senn and to bring before the public, lay and professional, the valuable services rendered by Dr. Senn. The means to be employed for this purpose will be decided on later. Dr. Alex. Hugh Ferguson was unanimously elected president of the club, and Dr. Arthur MacNeal was re-elected secretary.

AMERICAN PROCTOLOGIC SOCIETY.

The preliminary program for this Society has just been issued and contains a number of valuable papers by well-known specialists. The annual meeting will be held this year in Atlantic City June 7 and 8. The headquarters and place of meeting of the Society will be Haddon Hall. The officers of the Society for the current year are: President, Geo. B. Evans, Dayton, Ohio; vice-president, John Jelks, Memphis, Tenn.; secretary-treasurer, Lewis H. Alder, Jr., Philadelphia, Pa. The first regular session of the meeting will be at 2 p. m., June 7, and

the subject of the annual address of the president is announced as "Progress in Proctology".

The profession is cordially invited to attend all meetings.

SURGEONS OF THE SOUTHERN RAILWAY.

The Southern railway surgeons concluded their sessions in Jacksonville, Fla., on the evening of April 7th, by the election of officers. The entire day was taken up in the reading of technical papers and in discussion of important topics. Dr. W. A. Applegate, chief surgeon, was presented with a handsome watch by the members of the association.

The election resulted as follows: Dr. C. H. Starkle, Bellville, Ill., president; Dr. Jay H. Durkee, Jacksonville, Fla., first vice-president; Dr. H. W. Blair, Sheffield, Ala., second vice-president; Dr. J. U. Ray, Woodstock, Ala., secretary and treasurer, re-elected fifth time; Surgeon Oculist George H. Stubbs, Birmingham, Ala., member executive committee.

The majority of the members left Jacksonville at noon, April 8th, for Cuba. The members declared this the best convention they have ever held in some time.

A PLAN TO ACCELERATE SLOW PAY PATIENTS.

Dr. J. T. Lawson, Secretary of the蒙古 County Medical Society, writes that the following notice carried for two weeks in the Bowie, Texas, local papers worked wonders with slow pay patients:

"We, the undersigned physicians of Bowie, take the liberty to address this letter to our patrons and to those who expect to patronize us in the future.

There is no doubt of the fact that many people pay everybody else before they pay their doctor, and in many cases fail to pay him at all. Some because they can't, and some because they don't want to. As a rule the farmers who do not pay us are men who give mortgages to the banks and merchants on everything they own and make no provision for a probable doctor's bill. All we want is a square deal. We are willing to render our services for a reasonable price and have been doing so all along, but we want some assurance that we will be

paid. We suggest that every salaried or wage-worker save a portion of his wages each week or month to make a fund to meet a probable doctor's bill or to pay one he already owes.

We want every farmer who gives mortgages to remember his doctor when he goes to the banks or merchants to mortgage his crops and teams for money or supplies.

You will probably need the services of a physician some time during the year, and we request you to make provisions for paying him.

Every person who has ever employed a Bowie physician is given a rating, in a book we have for that purpose.

You are rated as either good pay, slow pay or bad pay.

These ratings will be changed as often as circumstances require.

If you are good pay and later on fail to pay some one of us, your rating will be changed to bad pay, and you will have to pay cash or give security.

If you are now rated as bad play, you can, by paying up in full, have your name removed from the bad paying class and placed with the good paying class.

But, unless you pay up you can not expect a physician's services except for cash or good security.

Those persons unable to pay their back accounts will be required to give notes, secured by mortgages or good personal security.

Those persons who are in arrears with their physician for any cause must pay or make satisfactory arrangements with him to have the amount carried over in form of notes, etc., before engaging another physician to do his practice.

Ministers and others who have been accustomed to concessions and free practice will be charged the regular fee for all services.

Newcomers will be required to pay cash or make satisfactory arrangements, and for their benefit we append our schedule of minimum fees:

Town Practice.

Day visits \$2.00

Night visits 3.00

Obstetrics, \$15, and \$1.00 per hour for detention after four hours.

Complicated cases of obstetrics, \$25 to \$50.

All obstetrical work cash.

Consultation \$10.00

Office Practice.

Prescriptions \$1.00

Office treatment \$1.00 to \$5.00

Country Practice.

Day visits, \$1. per mile, except for first two miles or less, which is \$2.50 to \$3 per visit.

Night visits are 50 cents per mile more than day visits.

Consultation, \$10, and \$1 per mile.

All other work same as town practice.

Old line insurance examination, \$5 straight.—Texas State Journal of Medicine.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

Your patients should be made to understand that the benefits accruing to you in attending the state association meeting fits you to give them better service, and understanding this they will be willing to pay you better fees.

Book Reviews

PROGRESSIVE MEDICINE, MARCH, 1909.

The March issue of Progressive Medicine takes up a wide range of interest. Professor C. H. Frazier of Philadelphia, deals, in one hundred pages, with the surgery of the head, neck, and thorax, the most vital half of the body. Of special interest are his articles on brain injuries, and the surgery of the thyroid and mammary glands. In the section on the heart, the studies in resuscitation from anaesthetics and the paragraphs on cardiac suture will attract particular attention. Professor R. B. Preble, of Chicago, covers the great field of infectious diseases, including acute rheumatism, influenza and croupous pneumonia. Dr. Floyd M. Crandall, of New York, deals with the ad-

vances in pediatrics, and Drs. D. Braden Kyle, of Philadelphia, and Arthur B. Duel, of New York, with rhinology, laryngology, and otology.

The readers of Progressive Medicine can feel confident of keeping posted. The four yearly volumes, fully indexed, form in themselves a valuable reference library.

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WANTED—EVERY MEMBER OF THE SOUTH CAROLINA MEDICAL ASSOCIATION to know that their journal carries only approved advertising from responsible and trustworthy firms, and these advertisers not only deserve, but should have the support of the members of the Association.

WANTED—Slightly used instruments and all kinds of office equipment in good condition. Fair prices for reliable goods. Distance no object. Write Henderson, 127 East 23rd Street, New York.

FREE SAMPLE of a new patent Two Finger Obstetrical Examination Cot will be sent to physicians sending card or prescription blank. Other novelties. Address Medical Equipment Company, 127 East 23rd Street, New York.

WANTED—The readers of this Journal to know that an ad. in this column last month, offering a practice for sale, brought 12 replies within one week. A word to the wise.

WANTED—Second-hand white enamel operating table. Must be in good order and cheap for cash. Give description and lowest cash price. Address O. T., care this Journal.

BOOKS—Agents wanted for Goldthwait, Painter and Osgood's, Cabot's and Austin's books, and The Boston Medical and Surgical Journal. Write for special offer. D. C. HEATH AND CO., BOSTON, MASS.

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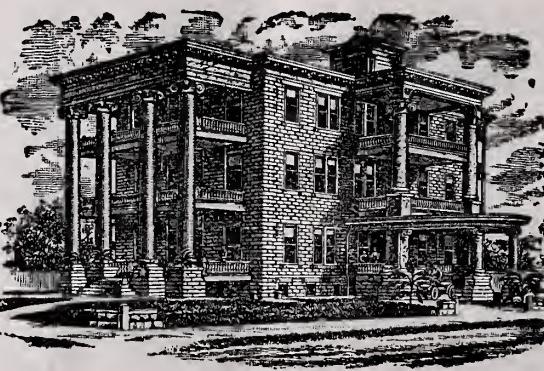
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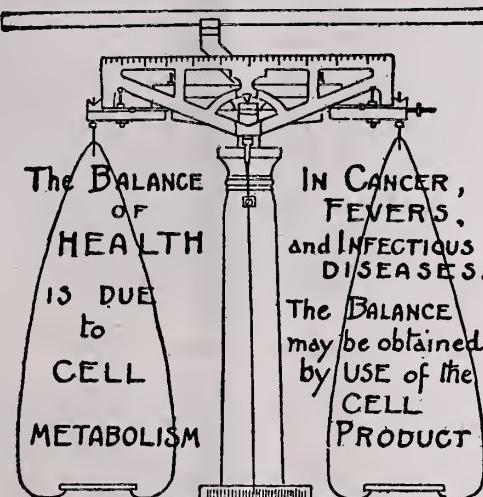
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South Carolina Medical Association

Next Annual Meeting at Summerville, S. C., April 21, 1909.
House of Delegates Convenes April 20, at 2 p. m.

District No. 1: Charleston, Berkley, Dorchester, Colleton, Hampton and Beaufort, Councillor, J. T. Taylor, M. D. Adams' Run, S. C.

District No. 2: Orangeburg, Bamberg, Barnwell, Lexington and Aiken. Councilor, T. G. Croft, M. D., Aiken, S. C.

District No. 3: Edgefield, Saluda, Newberry, Greenwood and Laurens. Councilor, O. B. Mayer, M. D., Newberry, S. C., Ch'm of Board.

District No. 4: Anderson, Oconee, Pickens, Greenville, Spartanburg and Union. Councilor, H. R. Black, M. D., Spartanburg, S. C.

District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor, W. B. Cox, M. D., Chester, S. C.

District No. 6: Chesterfield, Darlington, Florence, Marlboro, Marion and Horry. Councilor, F. H. McLeod, M. D., Florence, S. C.

District No. 7: Richland, Sumter, Clarendon, Williamsburg, Georgetown and Lee. Councilor, F. M. Dwight, M. D., Sumter, S. C.

Officers.

President, S. C. Baker, M. D., Sumter.

1st Vice-Pres., H. R. Black, M. D., Spartanburg.

2nd Vice-Pres., W. H. Nardin, M. D., An-

derson.

3rd Vice-Pres., A. T. Baird, M. D., Darlington

Secretary, Walter Cheyne, M. D., Sumter

Treasurer, C. P. Aimar, M. D., Charleston.

TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay.

County Society	President.	Secretary	Time of Meeting.
Abbeville	J. B. Britt	C. C. Gambrell, Abbeville	
Anderson	J. L. Gray	J. R. Young, Anderson	Semi-Mo., 1st and 3rd Mon
Aiken	C. A. Teague	T. A. Quattlebaum, Gr't'ville	Monthly, 1st Monday.
Bamberg	•	J. J. Cleckley, Bamberg	
Barnwell	A. B. Patterson	L. F. Bonner, Blackville	
Beaufort	H. M. Stuart	M. B. Cope, Port Royal	
Charleston	John L. Dawson	A. J. Jersey, Charleston	Semi-Mo., 1st and 15th.
Cherokee	•	B. L. Anken, Gaffney	
Chester	J. G. Johnston	W. B. Cox, Chester	Monthly, 1st Monday.
Clarendon	W. M. Brockinton	C. B. Geiger, Manning	Quarterly.
Chesterfield	T. E. Lucas	J. W. McCanless, Chesterfield	
Colleton	J. T. Taylor	T. G. Kershaw, Walterboro	Monthly.
Darlington	J. F. Watson	J. C. Lawson, Darlington	
Dorchester	J. B. Johnston	E. W. Simons, Summerville	Monthly, 1st Monday.
Edgefield	•	J. G. Edwards, Edgefield	
Fairfield	R. B. Hanahan	Samuel Lindsay, Winnsboro	Quarterly.
Florence	F. H. McLeod	J. H. Peele, Cartersville	
Georgetown	Olin Sawyer	W. M. Gaillard, Georgetown	Monthly, 1st Friday.
Greenville	L. L. Richardson	W. M. Burnett, Greenville	Monthly, 1st Monday.
Greenwood	R. B. Epting	J. B. Hughey, Greenwood	Monthly, 1st.
Hampton	T. B. Whatley	C. A. Rush, Hampton	Monthly, 3rd Wednesday.
Horry	A. D. Lewis	J. S. Dusenbury, Conway	Monthly, 2nd Monday.
Kershaw	S. C. Zemp	W. J. Burdell, Lugoff	
Laurens	W. D. Ferguson	J. H. Teague, Laurens	Monthly, 4th Monday.
Lee	B. L. Harris	R. O. McCutcheon, Bishopville	Monthly, 1st Tuesday.
Lexington	W. L. Kneece	J. J. Wingard, Lexington	Quarterly.
Marion	B. M. Badger		
Marlboro	W. M. Reedy	Chas. R. May, Bennettsville	
Newberry	J. M. Kibler	J. J. Dominick, Prosperity	
Oconee	B. F. Sloan	H. E. Rosser, Westminster	
Orangeburg	W. L. Pou	D. D. Salley, Orangeburg	Monthly, 3rd Tuesday.
Pickens	J. L. Bolt	R. J. Gilliland, Easley	Monthly, 1st Wednesday.
Richland	L. A. Griffith	Mary R. Baker, Columbia	Every 2nd Monday night.
Saluda	D. B. Frontis	J. D. Waters, Coleman	
Spartanburg	S. T. D. Lancaster	L. Rosa H. Gantt, Sp'tnb'g	Monthly, last Friday.
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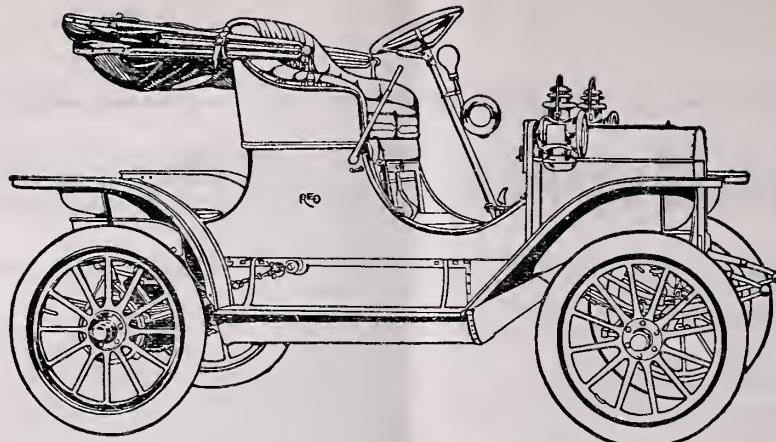
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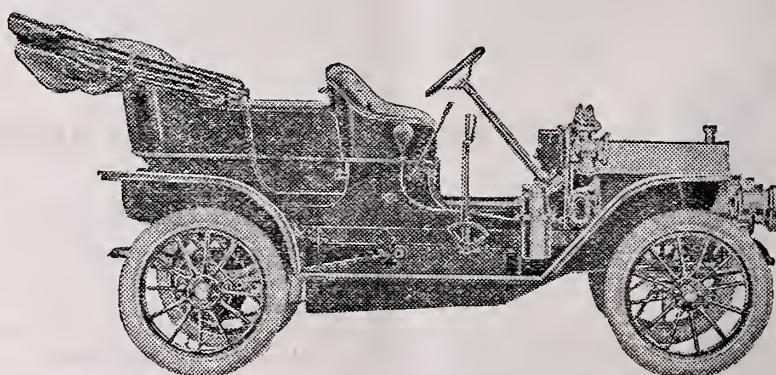
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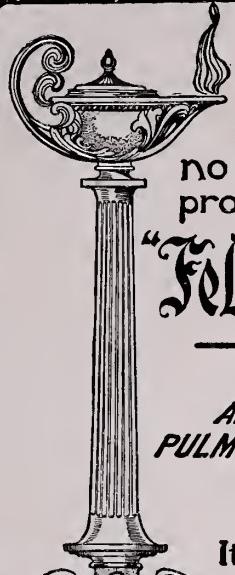
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The Journal OF THE South Carolina Medical Association

Volume V.

Greenville, S. C., May, 1909

Number 5

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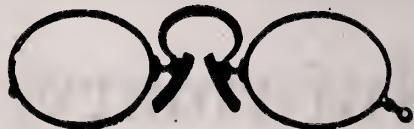
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VOL. V.

J. W. JERVEY, M. D., EDITOR

No. 5

MAY, 1909

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The Journal is published monthly under the auspices of the South Carolina Medical Association. Original Articles are solicited. Members who do not receive their copies will please notify the Business Manager. Correspondents and Secretaries of County Societies are urgently requested to send reports of their meetings, and items of news that may be of interest to the profession, to the Editor. All articles should be typewritten. Illustrations sent with articles will be printed. For prices of reprints see advertising pages.

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Editorial

On account of the large amount of space occupied by the minutes of the House of Delegates, some departments are necessarily omitted in this issue, and others are somewhat curtailed.

THE ANNUAL MEETING.

The Summerville meeting, April 20-22, has come and gone, and it is fair to say that many conflicting emotions were in evidence as to whether or not it could be regarded as a complete success from a scientific viewpoint, though we hasten to say, to the credit of our Summerville and Charleston hosts, the social side was wholly delectable and successful.

In the opinion of many members there are one or two serious defects in the management of our annual meetings as at present constituted. There was a great deal of evident dissatisfaction over the division of the meeting into medical and surgical sections. The attendance at our annual meetings is not large enough to warrant this division, or to make it necessary in the least degree, and the wisdom of the resolution adopted by the

House of Delegates, restoring the single general session, will be apparent to the great majority of members. If the number of papers offered for the single session should prove to be too great, for a satisfactory program, it would be entirely reasonable to adopt the plan in effect in many other societies, and in the great sections of the A. M. A., which provides for the submission of all papers to a scientific committee, and these would be accepted or rejected for the program according to certain fixed and equitable rules. However, it will probably be in the distant future before even this will become necessary.

Another problem for solution is the elimination of association politics from our annual meetings. Politics is the joy of the South Carolinian. It seems to be bred in the bone, and while in the past we have urged, and still urge, the medical profession to participate in the general politics of the state, yet we are quite certain that the development of internal polities for the control of its offices and management will, if unrestrain-

ed, eventually disrupt the association. The spectacle at the Summerville meeting of empty chairs at the scientific sessions, while here and there, scattered about the grounds and the spacious hotel, were groups of two or three or four or more agitated politicians hatching schemes and electioneering for their candidates for association offices, could not fail to evoke disfavor and regret among the true hearted and right minded members of the association. In our view this is not the way to advance the interests of the medical profession of South Carolina.

There is, we believe, just one way to provide against a recurrence of these distasteful conditions, and that is to have the House of Delegates meet sufficiently in advance of the scientific session to complete its business, including the election of officers for the ensuing year, before the scientific sessions convene. In other words, we believe it to be impossible to eradicate internal politics, which is an evil inseparable from all large organizations, but we are equally sure that with the business sessions completed and all necessity for electioneering and political activity being removed, the scientific sessions will grow in dignity and professional value, as well as in the number of their attendance. Let us hope that at the next annual meeting steps will be taken to amend the constitution in such a way that this growing evil will, at least be checked, even if it cannot be exterminated.

THE PRESIDENT'S ADDRESS.

In the presidential address delivered by Dr. S. C. Baker at the Summerville meeting, several suggestions were made which were eminently worthy of the favorable action taken upon them by the association. Following the first sug-

gestion, a committee of three, consisting of Drs. T. Grange Simons, C. W. Kollock and S. C. Baker, was elected by the House of Delegates to suggest at the next annual meeting a suitable memorial for perpetuating the memory of J. Marion Sims. Born a citizen of South Carolina and attaining the topmost pinnacle of fame in his chosen profession, he lived and died known of all men, as one of the foremost citizens of the world. We have suggested this action before now, in the columns of the Journal, and in March, 1907, we printed as a frontispiece a photographic cut of the Marion Sims statue and monument then recently erected in Bryant's Park, New York City, and we are glad now that Dr. Baker's advocacy of a memorial in this state has been endorsed by the association with every likelihood of a materialization.

The work of Dr. F. Peyre Porcher, investigating the flora of our southern fields and forests, contributing to the development of their therapeutic resources, is by all means a work whose recognition should be preserved in permanent form, and the placing of a tablet bearing his name in the hall of the Medical Society of South Carolina (Charleston County Society) will meet the earnest wishes of every member of our association. The work of such talented men must live while generations come and go.

The rank and file of the profession of this state will contemplate with pleasure the adoption by the House of Delegates of the president's suggestion that resolutions of appreciation be inscribed and sent to Dr. J. W. Babcock, of Columbia, for his important discovery and identification of the existence of pellagra in South Carolina. This disease has heretofore always been thought not to exist

in this country, and Dr. Babcock's work in proving its presence in our midst has been productive of appreciative discussion throughout the scientific world. It is well, indeed, that we should recognize such valuable service while he who rendered it is still with us to enjoy the plaudits of his fellow-men. We only wish these graceful acts could be more frequently accomplished.

One more suggestion made by Dr. Baker, and adopted by the House of Delegates, was to the effect that a prize be established to be awarded by the association every third year for the best essay on original and scientific work done by a member of the association, residing in South Carolina. This measure should do much to stimulate and encourage such work among our members, and all of us will await with interest the appearance of the essays submitted for the first award.

Dr. JOHN L. DAWSON.

Probably no choice of a president of the South Carolina Medical Association could have given more genuine pleasure to hundreds of former pupils and admiring friends than the recent election to this office, at the Summerville meeting, of Dr. John L. Dawson, of Charleston. A man gifted naturally with unusual intelligence, with a thorough academic training as a foundation for his scientific studies, he has reached a rare degree of intellectual attainment and professional achievement. For many years he has devoted himself to the study of the complex problems of internal medicine, and throughout this state, and even beyond its borders, he stands well in the forefront of the profession

as a diagnostician and therapeutist of conspicuous ability. We append, here-with a brief sketch of his career.

Dr. Dawson was born September 29, 1859, and his early schooling was effected under the tutelage of the famous Professor Sachtleben, of Charleston. In 1875 he entered the College of Charleston and took there the degree of B. A., in April, 1878. In October of that year he matriculated at the Medical College of the State of South Carolina, taking the M. D. degree in 1881, at which time also the College of Charleston conferred upon him the degree of Master of Arts. For the six years immediately following his graduation in medicine, he assisted in the dissecting room of the medical college, and in 1887 was elected demonstrator of anatomy. In 1890 he was elected to the chair of practice and clinical medicine, holding this professorship until 1903 when he was forced to resign on account of ill health. In 1904 and 1905 he served as assistant physician to the Loomis Sanitarium, at Liberty, N. Y., and there devoted himself to a special study of tuberculosis. In October, 1905, his health fully restored, he returned to Charleston and resumed the practice which he had been compelled to relinquish. He was elected a member of the board of commissioners of the Roper Hospital in 1907, and is now professor of practice of medicine in the Roper Hospital Poly-clinic. In January, 1908, he was elected president of the Medical Society of South Carolina (Charleston County Society), which position he still holds, and he is, at this time, a member of the Board of Health of the City of Charleston, having been elected in 1908.

A photograph of Dr. Dawson appears as the frontispiece in this issue.

A FOND FAREWELL.

Greenville, S. C.

April 24, 1909.

Dr. O. B. Mayer,

Chairman Board of Councilors,
Newberry, South Carolina.

Dear Dr. Mayer:—

Allow me, through you, to express my appreciation of your board's confidence in my management of the Journal, expressed by its re-election of myself to the post of editor. I think, however, that my remarks before your board in Summerville, on the 22 inst., were not to be misunderstood, and I can only reiterate what I said there, viz: that under existing conditions, with the present secretary of the association either unwilling or unable (I am at a loss to know which) to furnish what I conceive to be necessary information and co-operation to the Journal, it is my conviction that it would be for the best interests of the Journal and the association if I should withdraw and make way for the appointment as editor of someone else who may be more successful than I have been in securing this co-operation.

In addition, I find that interests of a personal nature demand more and more of my time and attention, and I think the profession will neither ask nor expect that one man should continue to make the personal sacrifices which seem to be inseparable from the proper and careful conduct of the Journal. Few recognize its heavy requirements and responsibilities, but those who do must realize that it is time another's shoulders should assume the burden for a while.

I, therefore, hand you this as my formal resignation from the office and duties to which you have so courteously re-elected me, and I must insist upon its

immediate acceptance. I shall be glad, of course, to render any reasonable assistance to my successor.

Regretting from the depths of my heart the necessity of this action, I remain, very respectfully,

Your obedient servant,
J. W. Jersey, Editor and Manager.

We should dearly like to print some of the many letters we have received from professional friends, both in and outside of the state, in regard to our intended resignation of the editorship of the Journal, but modesty forbids. These are bright spots in our journalistic career which will never fade from memory. It has at no time been our intention to make a life work of medical journalism, and many times since assuming the editorial pen we have been sorely tempted to lay it down; but each time that the decision to do so had almost been reached, circumstances involving duty to the profession, to our friends and to our own professional pride, have turned up to prevent. At last the way has been made clear and the field is ready to be given into another's keeping.

In a sense, it is always a regret to break a tie of close and constant association, but often too, as in this case, there is a feeling of deep relief and almost boyish joy that follows the escape from care, anxiety and responsibility. In some ways we have enjoyed the editorial chair, and we are deeply appreciative of the opportunities it has given us for deepening and broadening our professional views and interests, as well as for the privileges it has offered us in bringing us into contact with men and affairs representing the highest and best in scientific thought and achievement. The few enemies we have made, we may forget, for they are not pleasant things

to contemplate, yet we should despise ourselves had we not made them.

Our greatest joy is in the belief that outside of those few who are actuated by personal reasons or ulterior motives, there are not a handful of members of the South Carolina Medical Association who would not approve a continuance of our service. Such friendship and firm support must be deeply appreciated by the servant of any body of men, and it is especially gratifying when this body is composed of so splendid a class as the physicians of South Carolina.

With this issue, then, we bid farewell forever to medical journalism, and we depart with the firm resolve to cast out the sorrows and carry with us into the coming years only the joys that it has brought us.

The association is fortunate, indeed, in having obtained through the board of councilors, the services of Dr. F. H. McLeod, of Florence, as editor of the Journal. He is a man who has achieved success in his profession, a man of breadth, culture, personal popularity and last but not least, common sense. We wish him all possible success in the future management of the Journal, and we bespeak for him the sincere and loyal support of every member of the association in the tasks which he is about to assume.

THE ASYLUM INVESTIGATION.

We reprint on another page of this issue an editorial from the Charleston News and Courier which is so fairly appreciative of the conditions surrounding the legislative investigation of the State Hospital for the Insane, that it cannot have failed to produce a favorable impression among all of those having any personal or civic interest in the management of this great institution. It

is very clear that Dr. Babcock's position is impregnable. It has been plainly shown that whatever shortcomings exist in the institution are there, not from mismanagement, but from the inadequacy of the legislative appropriations for this work. Dr. Babcock has the fullest confidence, not only of the profession, but of those of the laity who, in the least degree, have come in contact with him and his work. The expressions of the News and Courier will be appreciated by the profession at large, and will go a great way towards stimulating confidence on the part of those who may not be conversant with the existing situation.

ANTI-TUBERCULOSIS COMMITTEE.

We are indebted to the Columbia State for the information below. It is news of association business of considerable interest and importance and should, of course, have been furnished to the Journal for original publication.

But it was not.

Is it exasperating that it was not?

Oh no, it is merely "funny", hence we say,

"To wit:"

To the Editor of The State:

I have just received from the chairman of the antituberculosis committee of the South Carolina Medical Association the names of one medical gentleman to represent each county in the state.

It is a matter of credit to the South Carolina Medical Association that it has taken up this work so thoroughly and in such an organized work, that the method of fighting tuberculosis has been taken note of in many states in the Union as well as the national capital. When fighting diseases of this character, it must be under medical supervision, it must be organized. This the association of the South Carolina medical men has determined, and while it calls to its help the civic leagues, the women's clubs, the

report of all the work done is made at the annual meeting of the association, the faults or failures of the counties are known and reported and the work goes on in each county with improved methods. While there may be several associations in the county, all doing good work, it is only proper to say that the official work of the state medical association is done under the direction in each county of the following named gentlemen.

Charleston, J. L. Dawson; Abbeville, C. A. Neuffer; Anderson, W. H. Nardin; Aiken, Fillmore Moore; Bamberg, H. P. Hoover; Barnwell, R. C. Kirkland; Beaufort, Gregory Elliott; Calhoun, J. K. Fairey; Cherokee, B. B. Steedly; Chester, W. B. Cox; Chesterfield, T. E. Wanna-maker; Clarendon, W. M. Brockington; Colleton, Riddick Ackerman; Darlington, William Egleston; Dorchester, E. D. Tupper; Edgefield, R. A. Marsh; Fairfield, S. Lindsay; Florence, B. G. Gregg; Georgetown, L. B. Ward; Greenville, Davis Furman; Greenwood, G. P. Neel; Hampton, C. A. Rush; Horry, G. P. Norton; Kershaw, J. W. Corbett; Laurens, T. L. W. Bailey; Lee, R. O. McCutchen; Lexington, R. H. Timmerman; Marion, A. M. Brailsford; Marlboro, W. J. Crossland; Newberry, P. G. Ellesor; Seneca, E. A. Hines; Orangeburg, L. C. Shecut; Pickens, J. L. Bolt; Richland, A. E. Boozer; Saluda, D. B. Frontis; Spartanburg, L. Rosa H. Gantt; Sumter, Walter Cheyne; Union, Crown Torrence; Williamsburg, E. T. Kelley; York, E. W. Pressley.

(Signed) Walter Cheyne,
Secretary South Carolina Medical Association.

ATLANTIC CITY NEXT MONTH.

The American Medical Association will hold its sixtieth annual session at Atlantic City, N. J., June 8 to 11. Our members who have attended one of these sessions in the last ten years will not need any urging to go. Those who have not attended a session of the association do not know what they miss, either from a scientific standpoint, from a so-

cial view or from a general rest up and good time. Now is your time to visit Atlantic City and it will be well to plan to stay the whole week or at least a good part of it. The association journal for May 1 gives full particulars regarding hotels, etc. If you are not a member of the association write the American Medical Association, 193 Dearborn Ave., Chicago, Ill., asking for copy of The Journal for May 1.

Editorial Notes

The executive committee of the state board of health has determined to inaugurate, in Columbia, a state laboratory for the diagnosis of pathological specimens and for the Pasteur treatment of rabies. The possibilities for great work in this direction are immense, and the opening of the laboratory will be an occasion of far-reaching importance to the health and lives of the people of South Carolina. Therefore the board, the profession, and the state are to be congratulated.

Address.

PRESIDENT'S ADDRESS.*

By S. C. BAKER, M. D.,
President South Carolina Medical Association.
Sumter, S. C.

Gentlemen of the South Carolina Medical Association: In assuming the duties of your presiding officer, custom has made it obligatory upon me to deliver to you an address. The discussion of a purely scientific subject you would probably consider ill-timed in me, and under

*Delivered at the sixty-first annual meeting of the South Carolina Medical Association held at Summerville, S. C., April 21st, 1909.

the new order of things the suggestion of policies of administration is not deemed admissible before this general meeting, but should more properly be presented through the Council to the House of Delegates. Passing, then, over a number of practical matters affecting the welfare of our association, I wish to ask your consideration of some other matters which may appeal to you somewhat as medical men but more largely on the side of your patriotism and love of country, and that not in the sense of the soldier standing on the firing line, nor of the politician or statesman who are in the lime light, but in that far harder because less spectacular form, that plans and labors while others shine.

I wish first to draw your attention to the great awakening that is taking place in the matter of civic healthfulness, and this not so much from the view-point of benefit to the individual but because of the part it plays in national achievement and advancement. In the earlier civilizations of the Greeks and Romans, where the man of battle was the undisputed man of the hour, where physical development and symmetry of form were appraised at their fullest worth, there existed no doubts as to the value to the individual and to the state of physical health and perfection. Of a more rugged mould and less sensitive breed than we, they did not hesitate to maintain the primal excellence of their stock, and at the same time free the state of, what seemed to them, the support of a needless burden by eliminating the weaklings. While stressing the physical, experience with them also showed that a sound body not only offered the best means of maintaining national existence and of furthering conquest and national attainment, but it likewise afforded the logical dwelling place for a

sound and aggressive intellect, hence the Latin aphorism, "mens sana in corpore sano."

In the process of evolution, Dr. Le Conte has taught that it is probable that the acme of physical development was achieved in the perfecting of the "human from divine" and that thenceforth human development would be along mental and moral lines till man approached the god-like, but that a perfect physique is the prerequisite of sustained and progressive mental effort.

Rome to the outside world stood for the embodiment of physical power and achievement—an unbalanced entity. Roman manhood, military success, imperialism, was followed by Roman luxury, licentiousness and decay. The advent of Christianity drawing, as it did, the strong contrast between the physical and the spiritual, emphasized the value of the mind and of the soul over the body, and accentuating this idea we find the monks of the middle ages mortifying the flesh by fastings and scourgings to the uplifting of the spirit but depleting of the body. And so now, while we cling perhaps unconsciously to the same idea, the vigorous views and traits of the older civilization seem almost to have died in ours and to have been superseded by the cultivation of the mental, the aesthetic, and the sentimental, at the expense of the physical and the virile, with the consequent result of a stoop-shouldered and near-sighted race of intellectual giants, but physical weaklings and neurasthenics, another unbalanced manhood.

Failing to note the real source of trouble, and so allowing it to go on unremedied, we have been led by our sympathies to found in the cities large free dispensaries and to endow and equip magnificent hospitals for the treatment

of those already sick, a system which though prompted by the noblest sentiments, is largely engaged in preserving to the world a strain of tuberculous, syphilitic and neurotic degenerates that does not make for the ultimate upbuilding of the race. Through this expression of sympathy, then, and still more by our unrestricted right of marriage, we are again losing sight of the vast importance of a superior vitality in maintaining individual and national efficiency.

The pendulum however is beginning to swing back. The doctrine of the conservation of energy is receiving a new interpretation. We can not wipe out the degenerates at a word. It is not permissible to expose the weaklings as in the days of ancient Rome. We may not cease to care for the hopelessly weak and the afflicted, but we should assume the right to limit their power to indefinitely propagate a strain of weaklings that pollutes and preys upon the body politic. Maintaining then the charities that we have, how much better that any new bequests be spent, not upon hospitals to cure the sick, but upon educational plans and sanitary measures to protect the well.

The part which imperfect drainage, bad water, impure food, ill-ventilated houses, and failure to isolate contagion play in destroying life and impairing health has become more and more apparent with the study which sanitary authorities have given to the subject. The average length of human life in different countries varies from less than twenty-five to more than fifty years. The investigations of the Conservation Commission in its report on national vitality go to show that the average life-span, if the five diseases tuberculosis, entero-colitis, typhoid fever, pneumonia, and diphtheria, were prevented within

the recognized ratios of preventability, would be increased by from eight to fifteen years. It is estimated that eight years out of the fifteen which might be added to human life could be achieved by the obtaining of pure air, water and milk and two years more could be added by the elimination of preventable tuberculosis. The American people, vigorous and strong from pioneer ancestry and healthful living, have gone forward with leaps and bounds and we must realize the truth of the language of President Roosevelt that thus "our national health is our greatest national asset. To prevent any possible deterioration of American stock should be a national ambition. The preservation of national vigor should be a matter of patriotism."

In the complicated interrelations of modern life where each individual and each profession must fill its special place and thereby win its right to exist, it is the function of the medical profession to point the way to maintaining this national vitality at its highest level. In this "religion-of-good-health" we should serve as priests, and gauged from this viewpoint our profession is the most important factor in the wellbeing of the nation, for through us health shall be more abundant and virile, the state more enlightened and prosperous, and happiness more certain and lasting.

In this fight our Board of Health is the standard bearer. Let us uphold their hands in every possible way. Up to this time they have been fighting old foes, with whose tactics we are more or less acquainted; but the commercial demands which have necessitated the Panama Canal will turn loose upon us a new force of whose methods of attack we are ignorant. In the hope of fore-stalling this threatened invasion I have

sought the assistance of the United States Government, and I am glad to announce that we have had detailed for our meeting two officers of the Public Health and Marine Hospital Service who will do their best to enlighten us and better fit us for this campaign.

This being our mission, namely, to maintain the healthfulness of the citizen for the welfare of the state, it is our duty to prepare ourselves for the work as best we may, and this brings me to the second matter that I wished to present to you, and that is the securing of our medical educations.

While I would be the last to attempt in any degree to limit the advantages of any one entering upon the study of medicine, I wish here to enter a plea for our state institutions. I am a loyal American citizen, but I am first a South Carolinian, and I wish to see her institutions flourish and grow. I want to see our young men take their training in them as far as they are prepared to give it, and I want to see these institutions thus built up by an increased patronage, better fit themselves for the work that they are attempting to do. Let our young men first prepare themselves in our literary schools of higher learning, the South Carolina College, Clemson or the Citadel, then let them enter the Medical College of the State of South Carolina as it is officially named, and I dare voice the hope that ere long it will become incorporated as an integral part of the educational system of the state, whereby it will form a department of the state university and you and I can feel that we have a share in it.

It is needless for me to detail the many reasons why it is more advantageous to patronize a home college—they are manifest to all—but I make the plea entirely as a matter of state

pride. There was a time, as the classes of 1902 and 1903 well know, that I fought this college when she was seeking exemption from examination for her graduates, because it seemed to me that such a course was undemocratic, and that she placed herself in the position of a weakling, afraid to enter the lists with her rivals. Now she fights in the open and her graduates stand with the best, and I am glad to pay homage to her for the work that she and her sons have done and are doing.

After graduation I am persuaded that a hospital internship or a year or two of general practice is best before a man takes up post-graduate study, but at that time he should attend some post-graduate institution where he will breathe a new atmosphere and imbibe new ideas. These he can find in the medical centers of the North and West, or abroad. After a few weeks or months of brushing up he is able to tackle the problems of every day practice with renewed energy. After another season of work I want to recommend that he avail himself of the enterprise and knowledge of the corps of men who have inaugurated the Polyclinic Medical School in Charleston. They are our medical brethren, fellow members of this association and fellow Carolinians. You will need their help. There are many things in which you have grown rusty. They need your patronage and encouragement. Along the same line I wish to say that there are a number of good hospitals established in the several sections of the state. Why need you take your patients to distant hospitals North or West? Increased material means increased experience and increased efficiency. You know these institutions and their staffs. Patronize them. Your patients will not suffer by it. Give your state institu-

tions the preference, it will help them to do more and better work, it will help you by being able to watch your cases. Let us cooperate; let us stand shoulder to shoulder and help each other. No doctor ever gained anything by knocking his rival.

Having obtained a thorough preliminary and professional education, keeping abreast of the times by constant post-graduate study and work, I wish again to plead the necessity of original research. We have a great state and great opportunities. Her territory while not very extensive in area comprises all manner of climates, of soils and occupations, and her people—our people—are worthy of the best we can do for them. Let us lay out for ourselves the task of investigating our local diseases and our medical resources.

In certain lines we can do little as yet because of our unpreparedness. Unfortunately we have no thoroughly equipped laboratories and so for this class of work we can for the present only rely upon others. But honesty must force us to confess that for years we have laid on our oars, and have not done what we could towards solving our share of the great medical problems that lie at our doors. We can not hope to throw much additional light upon the studies in tuberculosis and cancer. We can only follow in the footsteps of others in these diseases, but we can investigate, and we have pledged ourselves to instruct our people, as to the subtle and far reaching influence and effects of venereal diseases and this not solely upon moral and religious grounds, for that is not exactly our function, but upon broader and more vital basis of civic and individual health and well-being.

The question of the further limita-

tion of the use of alcoholic beverages has become almost a national issue. The wisdom of its forcible curtailment we will leave with the prohibitionists, the politician and the people. We recognize the evils of over-indulgence. I believe that the craving for liquor is greatly augmented by the general depletion of our vitality. This question is one that intimately affects our people and we are as competent to test and solve it as any. Let us then endeavor to work out the cure for the inebriate, but let us go farther and solve the problem of how to eradicate the tendency to inebriety. At the same time we might strive to curtail the evil of gluttony as possibly filling more graves than whiskey.

In our investigations we should be broad-minded and tolerant. Medicine is probably one of the most intolerant of all professions, and we find it easy to cry to the newer creeds, "charlatan" and "quack." Let us remember that it is the aim of medicine to bring relief to suffering humanity whether that be by our rule of thumb or by that of another, the end aimed at is relief. We should strive to unravel and understand the rationale of treatment if we can, but this is not always possible. There are still some recognized remedies that we use empirically. As you are well aware there have appeared among us in the last few years two new cults at which we have not hesitated to point the finger of scorn. I refer to Christian science healing and to osteopathy. Now I think you will believe me that I am no follower after new gods, but I do realize and I think that you will agree with me that there are some patients whom the regular profession have failed to cure, benefit or satisfy, and that these patients one or the other of these cults has

put upon his feet. These being the stern facts we must admit that though we know that Christian science and osteopathy will not accomplish all that is claimed for them by their followers and professors, still they do do some good to some people. Who will take up the task of separating the wheat from the chaff? The Emmanuel movement in Boston is trying to do something of this sort there. Who will attempt it here? Here is an opportunity, who will seize it?

Only by original investigation can we hope to be anything more than copyists, and only as original workers can we gain eminence in the councils of our brethren. It is mortifying to have to go to a text book written by a Northern man to learn of the types, causes, symptoms and treatment of malarial fever, when we ourselves should be the authorities. And so for uncinariasis; the material is abundant with us for study. Let us prepare ourselves to teach others, not always sit as pupils.

In the earlier years of our association we produced men who were shining lights in the medical councils of the nation. I refer to such men as J. Marion Sims, R. A. Kinloch, T. Gaillard Thomas, Julian Chisolm, Francis T. Miles, Francis Peyre Porcher, Cornelius Kollock and others. Dr. Sims gave us gynecology, Dr. Chisolm stood high as an oculist, Dr. Thomas's book was translated into seven languages, Dr. Porcher chronicled with painstaking care the resources of our Southern fields and forests, Dr. Norwood gave us his tincture of veratum viride, Dr. Junius A. Mayes, of Sumter county, was the first to investigate and prove the value of the yellow jessamine as a medical agent, and later our present member, Dr. J. L. Napier, has given us his preparation of horse nettle for use

in epilepsy. Who will continue this work? There is a theory that every section conceals its remedy as well as its disease, its antitoxine as well as its toxine. This may or may not be true. It is at least a field for investigation. Thank God He has given us problems to solve. We need not rust or stagnate, there are yet other worlds to conquer.

Dr. Babcock has added prestige to our state and our association by his recognition and investigation of pellagra in our midst. There are many questions as to causation and treatment that have to be worked out. Who will help?

Dr. Sheppard as a botanist and scientist has realized his dream of successful tea culture in South Carolina and he has by this achievement brought credit upon our whole state.

J. Marion Sims was born in Lancaster county, South Carolina, January 25, 1813. He has shed more luster upon the medical profession of America than any man yet born. He founded a new department of medicine. His reputation is not only national but international. New York City, the home of his adoption, recognizing his great worth, erected to his memory a monument in one of her public parks, the first monument in America, if not in the world, to be erected to a medical man. He has brought glory upon his country, his native state and county. The centennial of his birth is now near at hand, January 25th, 1913, something over three years hence. I wish to recommend that this association take steps through appropriate committees to raise a fund to erect a monument, with suitable ceremonies, to the memory of J. Marion Sims upon the soil of his native state. Whether it would be wiser to locate it in Columbia, the capital—he was a student there and graduate of the South Carolina College—or in Char-

leston, the medical center of the state—and he was a student of the medical college there, or at Lancaster, his birth place, can later be determined.

I also wish to suggest that our association take steps to place in the hall of the South Carolina Medical Society of Charleston, a tablet suitably inscribed to the memory of Francis Peyre Porcher, as a token of the honor in which he is held for his original researches in Southern fields and forests.

I suggest a vote of appreciation to Dr. J. W. Babcock for the painstaking research he has done in connection with the identification of pellagra in this country, and that a suitably engrossed notice of the same be forwarded to him.

I would further suggest that this association offer a prize every year or every two years for the best work in original research within the borders of South Carolina by a member of this association, the terms of the contest to be arranged by the Council of the South Carolina Medical Association, or a committee of this body as may seem best.

I am consumed by an ever increasing jealousy for the pre-eminence of the medical profession of South Carolina. Every thing worth while comes slowly, but my hope is that with sound bodies and sound minds, looking backward to a glorious past, and standing in a present pregnant with opportunity, we may continue to strain forward to a still more glorious future for our state and our profession, which we ourselves may not reach, but that shall be for our children and our children's children an assured reality.

Original Articles

UNUNITED FRACTURES.*

By STUART MCGUIRE, M. D.,
Surgeon-in-Charge of St. Luke's Hospital,
Richmond, Va.

A generation or two ago, writers of popular literature alluded to doctors as "bone setters." Today, they are referred to as pathologists, neurologists, or gynecologists. A generation ago, the leading surgeons of the country were famous for their ability to set a fracture; today, they are better known for their ability to set a fee.

The enormous increase in medical knowledge, the limitation of study to special lines, the fascination of modern aseptic and antiseptic surgery, the striving after the new and original to the neglect of the old and established, have resulted in the sad but inevitable fact that the average surgeon of today is not as competent to treat an ordinary fracture as were his forefathers.

In our medical schools enthusiastic professors teach microscopic technique, serum therapy, and the indications for opening the abdomen in obscure diseases, and the student is either referred to his textbook or to an assistant for instruction in the diagnosis and treatment of fractures. In our medical societies papers are read and discussed on the mosquito theory of malarial infection, the method of catheterizing the ureters, and the choice between the perineal and suprapubic routes for prostatectomy, with but rare reference to the many important points concerning the produc-

*Paper read before the Association of Southern Railway Surgeons, at Jacksonville, Fla., April 6-8, 1909.



tion and immobilization of a fracture. I plead guilty as a teacher and writer to having done my part in bringing about this condition of affairs. In fact, the recognition of my own deficient knowledge of "bone setting" has made me determine to give the subject closer study, and has led me to make this plea for the better education of students, and the more thoughtful attention of practitioners to what, if I am not unduly pessimistic, threatens to become one of the lost arts.

Babies are born and bones are broken in every community, and while specialists in large cities may formulate and teach the principles for the management of such cases, it is to the general practitioner that the public still looks for delivery in labor and first aid to the injured. If lack of study and hence lack of skill shall lead to poor results at the hands of the local attendant, the laity will soon learn to transport fracture cases to the cities, and the country doctor will be responsible for the creation of an additional specialist to the number which already encroaches upon his practice.

With few exceptions, a broken bone properly set and splintered will heal, and the increasing number of cases of ununited fracture that come to a surgeon, referred by the attending physician, is a clear index of the lack of knowledge possessed by the average doctor with regard to the treatment of fractures. I claim no personal exemption from my own condemnation, for I am free to confess that I respond to every call to set a broken bone with reluctance, and leave the case with misgivings; and I know from the confidence with which I undertake other work of greater responsibility that my timidity comes from ignorance. Public criticism is frequently

withheld when a surgical blunder is committed in the abdomen, but it is sharp and relentless when it is apparent in a limb. A man who dies after an operation is buried and soon forgotten, but the man who has a deformed arm or shortened leg from a badly treated fracture lives for a generation, a walking or limping advertisement of surgical limitation or incapacity. Let us, therefore, study fractures more, in order that we may treat them better.

But little has been learned and much has been forgotten in regard to the immediate treatment of simple fractures since the publication of the classical work of Malgaigne more than fifty years ago, and as this and other books are accessible to the profession, I will limit my paper to a brief review of what has been accomplished and what remains to be done in the treatment of a special class of cases commonly called ununited fractures.

When a bone fails to unite after being immobilized for a certain length of time, the condition is spoken of either as delayed union or non-union. Delayed union is a condition in which reparative action is present, but where, owing to lack of nutritive vigor, callus is either tardy in development or imperfect in its transformation. Improvement of the general health, the establishment of a more perfect coaptation, irritation at the seat of injury by forcibly rubbing the fragments together may stimulate the healing process and finally result in solid union.

Non-union is a condition in which reparative action is absent from local or constitutional cases, and the result is either a ligamentous union or the formation of a false joint. The ends of the bone round off, the medullary cavities become closed, and the blood supply to

the part is diminished. There is always abnormal mobility, often displacement of the fragments, and sometimes absorption of the ends of the broken bone.

The division of united fractures into delayed union and non-union is based on the fact that cases in the first class can be cured without an operation, by making more active reparative forces already in existence, by means of constitutional and local treatment; while cases in the second class cannot be cured except by an operation which freshens the rounded ends of the bones, opens up their medullary cavities, and changes the existing passivity to the activity of a recent fracture. Unfortunately, this prognostic distinction cannot always be made clinically, and usually the surgeon, when called to treat a case of ununited fracture, deals with it at first by non-operative measures, with the hope that union may simply be delayed, and should his efforts prove unsuccessful, he operates on it later, under the conviction that it is a case of non-union not amenable to less heroic measures. As delayed union and non-union cannot be differentiated except by the ultimate result in individual cases, it is not only practical, but proper, to discuss them jointly. Here, as elsewhere, it is necessary to consider the cases which, singly or combined, result in the condition, for by their early anticipation and prevention, or later by their recognition and correction, much time and suffering may be spared the patient.

The causes of delayed union or non-union of a fracture are usually classified under the heads of general and local. Under the first, authorities give a long list of constitutional conditions or diseases, such as age, pregnancy, lactation, acute infectious diseases, starvation, loss of blood, rickets, marasmus and syphilis.

Most of these are of doubtful influence, for it is a strange but authenticated fact, that failure of a fracture to undergo proper ossification is more apt to be observed in a vigorous adult than in the debilitated, the marasmic, or the aged. While it is true that syphilis and fractures are both so common that they must often coexist without detrimental influence one on the other, still, in my personal observation, patients with delayed union have responded so often and so promptly to antisyphilitic treatment that it is now my practice to prescribe iodide of potash in such cases as the first effort to secure union, and this whether any history of specific infection can be obtained or not. If it does no good, it does no harm, and as we all know, syphilis, like accidents, is likely to occur in the best regulated families, and patients suffering with the disease are sometimes ignorant of their condition, or untrustworthy in their statements. It must be understood, however, that it is the general debilitating effect of the disease, rather than bone syphilis, which is antagonistic to union, for it is well known that the osseous lesions of syphilis are all productive and sclerotic in character.

Under the local causes of delayed union or non-union may be mentioned, first, marked displacement or wide separation of the fragments; second, interposition of muscles, fascia or foreign bodies between the fragments, third, defective nutrition through faulty innervation or deficient blood supply; fourth, infection and suppuration, destroying or preventing the formation of callus; fifth, defective immobilization or premature passive motion—in fact, any defect in the primary treatment of a fracture, such as failure to effect accurate reduction and to secure proper

immobilization, too tight bandaging, undue pressure of splints, frequent removal of the dressings for the purpose of inspection, and finally, permitting the patient to use the limb too soon, on account of the unfounded fear that prolonged fixation endangers the function of an adjacent joint.

When a surgeon takes charge of a case of ununited fracture, his first attention should be directed to the general health of the patient. An examination of the urine should be made; errors of digestion should be detected; anemia and debility should be combated; and the general system placed in the best possible condition. If the case is not over a year's standing, iodide of potash should be administered, unless the drug has already been tried without result.

The local treatment should be based largely on the result of an X-ray examination. In some cases it will appear probable that the patient can be cured without subjecting him to an operation. In other cases it will at once be obvious that nothing short of operative surgery will prove effective.

The following is a brief summary of local methods that have been advised, each of which will prove of service in properly selected cases. First, light elastic constriction of the limb above the seat of fracture, producing more or less hyperemia; second, active use of the limb encased in an immobilizing dressing of plaster-of-Paris; third, percussion of the limb by the surgeon with a rubber mallet, or by instructing the patient to strike his heel on the floor if the fracture be in the lower extremity, or pound the hand or elbow on a table if it be in the upper; fourth, injection of from three to ten drops of a 10 per cent. solution of chloride of zinc be-

tween the ends of the fragments by means of a hypodermic syringe; fifth, administration of an anesthetic, and forcibly tearing loose fibrous adhesions, effecting accurate apposition and treating as a recent fracture; sixth, subcutaneous drilling of the ends of the fragments, the perforations opening up the medullary space, and the small particles of bone detached acting as a stimulus to plastic repair; seventh, resection of the ends of the bones by an operation, the accurate adjustment of their freshened surfaces, and the maintenance of the fragments in correct position by means of sutures; nails, medullary splints, or bone ferrules, all reinforced, of course, by rigid external dressing which immobilizes the two adjacent joints.

Time does not permit me to discuss the several interesting points in the technique of this operation, or to describe many ingenious methods that have been devised to make it one of the most successful and satisfactory in surgery. Suffice it to say that when the operative treatment is practiced, it should be thorough and accurate, with especial references to rigid cleanliness and permanent immobilization.

Despite the success that has followed the treatment of ununited fractures since the introduction of aseptic and antiseptic surgery, there still remains one fracture that, up to this time, gives almost if not quite as poor results as it did a century ago, namely, fracture of the neck of the femur. For a time it was believed that failure to secure bony union of this fracture was due to some unusual pathological condition resulting in failure of callus to form in sufficient quantity to effect repair; but now it is known that the defect is due to failure of the usually applied mechanical meth-

ods to secure accurate approximation, and to maintain adequate immobilization of the fragments. The argument that in fracture of the neck of the femur, the upper fragment has not sufficient blood supply to maintain vitality, much less to produce callus, is controverted by the following facts:

1. Completely detached fragments of bone at other localities, such as a disc removed by the trephine, take an active part in reparative action.

2. Post-mortem examinations in cases of fracture of the neck of the femur show that the upper fragment not only retains its vitality, but in a majority of cases exhibits evidence of callus formation.

3. In cases of fracture where impaction has occurred, bony union will almost invariably result if the fragments are permitted to remain in apposition for a sufficient time.

4. In experimental cases produced on lower animals, bony union was the rule when the fragments were held in position by direct fixation with a nail or screw, while in the control cases not treated, no union except of a ligamentous nature was ever observed.

Writers no longer lay stress in fractures of the hip on the division into intra-capsular and extra-capsular fractures, but strongly urge the importance of distinguishing between a non-impacted and an impacted fracture. Impaction of fragments in case of fracture of the neck of the femur is considered the best setting of the bony fragments that a surgeon can obtain, and practitioners are urged not to try to elicit crepitus in doubtful cases, but to rely for diagnosis of the nature of the injury on shortening and eversion of the limb, the change in posture of the trochanter major, and the loss of tension

of the fascia lata between the trochanter and the crest of the ilium. Post says: "Better an imperfect diagnosis for the surgeon and a perfect limb for the patient, than a perfect diagnosis for the surgeon and an imperfect limb for the patient."

Much more could be written, but I trust I have said enough to convince you that failure to secure bony union after intra-capsular fracture of the neck of the femur is not due to any peculiar lack of reparative power of the part, but to ignorance of efficient means to effect reduction and maintain apposition of the fragments. In other words, the bad results that follow the injury are not due to any fault of nature, but to absence of efficient methods of treatment. Buck's extension apparatus in the original form, or modified by counter or lateral traction, rarely, if ever, secures a good result. Senn's method of manual reduction and fixation by the application of a plaster-of-Paris dressing, with a padded screw incorporated for making lateral pressure against the trochanter, is of doubtful value in the hands of the average practitioner. An open, or subcutaneous, operation for the direct fixation of the fragments by suture, nails or screws is applicable to but few cases, as the injury usually occurs in the feeble and aged, who are poor subjects for surgery. The problem of how to treat successfully cases of unimpacted fracture of the neck of the femur is a difficult one, and has not yet been solved. That it will finally be satisfactorily settled I do not doubt. Congenital dislocation of the hip is rare and few men ever have an opportunity to diagnosticate a case. Senile fracture of the hip is common and all of us are frequently called on to treat such cases. The deformity of youth is distressing,

but the suffering and helplessness of old age are even more appealing to our sympathies. May this society have the honor of producing a man who, some day, will accomplish this work.

PERIPHERAL OPERATION FOR TIC-DOULOUREUX; REPORT OF A CASE.

By ARCH. E. BAKER, M. D.,
Charleston, S. C.

Of all diseases that are not fatal, probably facial neuralgia is one of the most distressing and one of the most difficult to cure. The external treatment of this disease has been almost as varied as the internal; all manner of application of heat, cold, drugs, liniments and lotions, have their testimonials of cure. Electricity is employed in the form of electrolysis and high frequency current. The X-ray has been used as well as thorium and radium.

The number of surgical and semi-surgical methods for the relief of this trouble are probably greater than that ever advanced for the cure of any other disease. Owing to the mortality of operations on the Gasserian ganglion, which is at least 10 per cent., and the fact that at first we may be unable to differentiate between a major and a minor neuralgia, the peripheral operation on individual nerves should first be tried, provided all, or a large number, of the branches of the nerve are not involved.

To obtain the best and most lasting results from peripheral operations the nerve should be removed as far proximally as possible. The branches of the fifth nerve show a very strong tendency to regeneration, leading to recurrence of

the neuralgia after neurectomy, especially those branches which occupy a bony canal.

In mentioning some of the operations which have been devised, the stretching of the nerve was done as early as 1748. It gave so little relief that the method has been abandoned. The division of the nerve was but little better, in that the nerve reunitied so quickly. Resections of a portion of the nerve gave relief from six months to two years, at which time the nerve had succeeded in reproducing itself.

J. Ewing Mears recommended the removal of the Gasserian ganglion in 1884, and this was first done by Dr. Rose in 1890. Dr. Abbe, thirteen years ago, advocated the intracranial implantation of rubber tissue to cover the foramen of exit of the various branches of the trigeminal after their resection. This effectually prevented the regeneration or reunion of the nerves, and a further report was made in 1903, showing permanency of cure. Shortly after this original work of Dr. Abbe's Dr. C. H. Mayo, accepting the idea of interposing mechanical difficulties to the nerve union, devised his operation, which is based on the different function of the motor nerves from that of the sensory nerves, namely: that the motor nerves require a favorable opportunity for reunion, while it is a most difficult matter to prevent the regeneration and return of function of the sensory nerves.

The impulse of the motor nerves being from the center outward, the peripheral end degenerates. The function of the sensory nerve fibers are just the opposite, which is from the periphery to the center. His method is to remove as much of the nerve as possible, by resecting it out of the foramen by Thiersch's method, then plugging the foramen with a silver

screw, the screw being sufficiently large to be forced into the foramen by means of a screw-driver, thereby making it impossible for this screw ever to become dislodged. This being accomplished, the proximal end of the nerve can never grow back through the foramen to reunite with its peripheral end.

Report of case: Capt. E., aged 65. Suffered 9 years with facial neuralgia, having intervals of a few months rest from pain. As usual, he had every imaginable treatment rendered him, but with no permanent results. Finally, his sufferings became so intense that he could not talk or eat without severe sufferings. Also he could not sleep except under the influence of morphine. Life under such circumstances he felt could not last long, therefore, he accepted the operation which had been offered him several times before. The operation consisted in dissecting the infraorbital nerve from the foramen, and with a hemostatic forceps the nerve was caught close to the foramen, and winding the nerve on the forceps by Thiersch's method, at least 2 inches of the nerve was removed. With a Mayo's silver screw, the same being 3-4 inch long and 1-4 inch thick, by means of a screw-driver, the foramen was firmly plugged thereby making it impossible for it ever to become dislodged. This being true, the nerve will be prevented in its efforts to reunite itself. It has been one year and a half since this operation, and the patient has been entirely free from any symptoms of the old neuralgic pains. Quoting his words "I am now a well man."

THE UP-BRINGING OF AMERICAN CHILDREN A FACTOR IN THE COMPARATIVE RARITY OF PSYCHASTHENIA AMONG THEM.

By TOM A. WILLIAMS, M.B., C.M., (Edin.)
Washington, D. C.

Although little unconscious habit-spasms, especially among women, will strike the eye of a curious observer in

the street cars of American cities, yet such little tricks of manner as tilting the hat, twitching the nose, wrinkling the forehead, placing the hand up to the hair, hardly constitute an organized tic, as defined by (Brissaud Lecons sur les Maladies Nerveuses) for this is always preceded by an intense desire to perform the morbid act, and followed by relief when it is accomplished. It is, in reality then, a morbid impulsion, although Janet (in Les Obsessions et la Psychasthenie) is unwilling to classify it in that category as usually constituted. Now, the little tricks of which I speak are easily got rid of, and entail no suffering in so doing; while a ticqueur, to get rid of his habit (see Williams "Tics and spasms," Va. Med. Semi-Mo., Oct. 9, 1908) requires tremendous effort of volition, and experiences much suffering. Tic also is somewhat rare in the clinics, and the question arises whether this is not due to the habits and up-bringing of the American.

Authorities are now agreed that tic is one of the stigmata of the constitution termed by Janet psychasthenic, and formerly described by Magnan (Les Degeneres) as degenerate. It differs only in form from the more purely intellectual and emotional manifestations of this psychosis. The content of the psychological process which manifests itself motorially as a tic scarcely differs from those which eventuate in obsessions or phobias, where the intellectual and emotional factors predominate respectively. (Williams, Importance of Distinguishing among the psychoneuroses, Jour. Abn. Psy. '09, Feb'y. Also Dif. Diag. Neurasthenia From Affections Often Mistaken for It, Arch. of Diagnosis, N. Y., 1909, Jan.) Each is characterized by a recurrent, non-volitional, ill-regulated, often absurd, non-produc-

tive, sterile tendency to act, to think, or feel, ill adapted to, or even quite at variance with, the course of the environment of the time being, though once related usefully to a former obsolete environment, ontological or phylogenetic.

It is the product of the state of mind which eventuates in the undecided character, the vacillating man, the doubter, the individual who cannot make up his mind.

This state is encouraged by an up-bringing which fosters distrust of self, respect for and dependence upon the will of one's elders as such, the habit of self distrust because we are ourselves, whether on account of being young, religiously unworthy, ignorant or what not, as compared with an ideal one's parent may or may not possess.

Now, no one can accuse the up-bringing of the American child of fostering such a disposition. It on the contrary induces self-confidence, precipitate judgment, in fact the very lack of that constraint the excess of which produces the self-doubter. It seems probable therefore, that it is the fashion of up-bringing which renders comparatively uncommon the subject of tic among the Americans as a whole. The tendency of the up-bringing is rather towards that facility of judgment and rapidity of decision which is very apt to be easily victimized by the suggestions (only that symptom may be justly termed hysterical which is "susceptible of production by suggestion and of removal by suggestion—persuasion,"—Balrinski, *Ma Conception de l'Hysterie*, Paris, 1906. Discussion sur l'Hysterie, *Revue Neurologique* 1908). of others, and to eventuate individually into hysteria (Considerations as to the Nature of Hysteria, with their Application to the Treatment of a Case,—Inter-

nation Clinics, 1908, Autumn. The Trend of the Clinicians Concept of Hysteria. Boston Med. Jour., 1909, March 26th), and in the mass, into wild crowd-movements.

To these latter considerations, the New England States form a marked exception; and the explanation is not far to seek in the self-restraint and powerful inhibitions of emotion entailed by the puritanical up-bringing which still largely obtains in that section of the country.

2118 Wyoming Ave.

Clinical Note.

RATTLESNAKE BITE—RECOVERY.

By E. H. BARNWELL, M. D.,
Enterprise, S. C.

Not having run across many reports of snake bite in the Journal, perhaps the following case may be of interest.

On the fourth of May, I was called to see a negro, age 25, and arrived on the scene about twenty minutes after he had been bitten by a rattle snake, six feet long, and which had thirteen rattles. The negro was bitten midway between the knee and the ankle in the fleshy part of the calf of the leg. I put about a dram of permanganate of potash in a six-ounce bottle and filled the bottle with water, then injected the solution around the bite about eight times in a circle, about one inch from the bite. The leg swelled up considerably, but at the present time the swelling has gone down and the man is getting on very well. Considering the size, type, and age of the snake, I believe that the permanganate solution certainly saved the man's life.



Minutes of the Meeting of the House of Delegates, Session of 1909, Summerville. S. C.

Tuesday afternoon, April 20th.

Meeting called to order by the president, at three o'clock, the first business transacted being the appointment of the following committee on credentials: Drs. J. T. Taylor, W. J. Burdell and Walter Cheyne.

Delegates Present.

The committee on credentials reported as follows, those present being:

Abbeville: W. D. Simpson.
 Aiken: T. A. Quattlebaum, A. A. Walden.
 Cherokee: J. G. Pittman.
 Colleton: W. B. Ackerman.
 Charleston: J. W. Burn, T. Grange Simons, T. P. Whaley.
 Clarendon: Wm. R. Mood.
 Chester: W. B. Cox.
 Chesterfield: I. R. Wagner.
 Darlington: J. L. Powe, G. B. Edwards.
 Dorchester: F. Julian Carroll, J. B. John-
 ston.
 Edgefield: W. D. Ouzts.
 Florence: C. A. Foster.
 Georgetown: T. R. Howle.
 Greenwood: S. L. Swyert.
 Greenville: F. G. James, C. B. Earle, E.
 W. Carpenter.
 Horry: J. A. Norton.
 Hampton: J. L. Folk.
 Kershaw: W. J. Burdell.
 Lee: J. W. Tarrant.
 Laurens: W. H. Dial, T. L. W. Bailey.
 Marion: A. M. Brailsford.
 Newberry: P. G. Ellisor.
 Orangeburg: J. K. Fairey, C. I. Green.
 Oconee: J. S. Stribling.
 Pickens: W. A. Tripp.
 Richland: C. W. Barron, W. A. Boyd, Wil-
 liam Weston.
 Spartanburg: J. F. Williams.
 Sumter: E. R. Wilson.
 Union: Crown Torrence.
 Williamsburg: E. T. Kelley.
 York: J. E. Massey, M. J. Walker.

Ruling on Rights of Alternates.

The president requested the ruling of the House upon this point: "If a delegate fails to be here at this time, and the alternate be here and be given a seat, that he be considered throughout the meeting as the delegate;" explaining that that was the rule adopted in Bennettsville, but that in Anderson, the following year, it was reversed. For instance, that the alternate might have been appointed on a committee, and that committee be half through its work when the delegate came, and the alternate, in being obliged to give place to the delegate, disorganized things and created confusion.

Dr. Cheyne made the motion that Dr. Baker's ruling be sustained by the House of Delegates. Seconded by Dr. Williams, and carried.

Treasurer's Report.

To the President and Members of the South Carolina Medical Association:

Gentlemen: In submitting this annual report, the treasurer herewith furnishes a complete itemized statement of the receipts and expenditures for the fiscal year 1908.

While this has not been customary, at the same time it is essentially necessary at present, that each delegate may be in full possession of our financial condition, that all of us may realize the importance of exercising discretion in the expenditure of our funds and thus practice greater economy during the ensuing year.

I desire especially to call your attention to the fact that this year two delegates were sent to the American Medical Association. This is to be commended and should be continued, providing we can afford it but as this body usually meets at a considerable distance, these expenses at times amount to quite an item. In 1908 they amounted to \$257.66. I would suggest that this matter be taken under advisement and if we cannot afford to send two delegates we may revert to our former plan of sending only one, whose expenses we pay.

The attached statement speaks for itself.

Very respectfully,
 C. P. Aimar, M. D., Treasurer.

South Carolina Medical Association.
Statement 1908.
Cash Received.

1908.	
Jany. 1	Bal. cash on hand
	\$ 620.91
Feby. 24	Marlboro Co. Med. Soc.
	51.00
March 7	Dorchester Co. Med. Soc.
	66.00
" 8	Aiken Co. Med. Soc.
	63.00
" 9	Greenwood Co. Med. Soc.
	57.00
" 12	Lexington Co. Med. Soc.
	45.00

"	14 Edgefield Co. Med. Soc...	27.00	"	9 Bank exchange on check	.28
"	16 Aiken Co. Med. Soc....	9.00	"	15 Bank exchange on check	.15
"	17 Clarendon Co. Med. Soc...	75.00	"	16 Bank exchange on check	.15
"	17 Colleton Co. Med. Soc...	30.00	"	18 Bank exchange on check	.15
"	23 Sumter Co. Med. Soc....	36.00	"	24 Dr. Walter Cheyne, Secty.	
"	23 Spartanburg Co. Med. Soc.	141.00		expenses	60.50
"	23 Saluda Co. Med Soc....	21.00	"	25 Bank exchange on checks	.30
"	27 Laurens Co. Med. Soc....	72.00	"	30 Bank exchange on check	.15
"	28 Union Co. Med. Soc....	48.00	"	31 Bank exchange on check	.15
"	29 Beaufort Co. Med. Soc...	21.00	"	31 John J. Furlong, Stamped	
"	30 Kershaw Co. Med. Soc...	27.00		envelopes	3.00
April	1 Georgetown Co. Med. Soc.	24.00	"	31 Dr. J. T. Taylor	9.58
"	1 Williamsburg Co. Med.Soc.	21.00	April	2 Bank exchange on check	.15
"	1 York Co. Med. Soc....	39.00	"	6 Bank exchange on check	.15
"	4 Chesterfield Co. Med. Soc.	21.00	"	9 Bank exchange on check	.28
"	4 Chester Co. Med. Soc....	27.00	"	11 Bank exchange on check	.30
"	5 Pickens Co. Med. Soc....	48.00	"	12 Herald Publishing Co.,	
"	8 Hampton Co. Med. Soc...	21.00		Preliminary and final	
"	8 Edgefield Co. Med. Soc...	6.00		programs, etc.....	21.25
"	9 Andeson Co. Med. Soc....	102.00	"	13 Exchange on check.....	.45
"	9 Lee Co. Med. Soc....	27.00	"	13 Exchange on check.....	.43
"	9 Newberry Co. Med. Soc...	36.00	"	14 J. W. Jersey, services as	
"	9 Darlington Co. Med. Soc.	45.00		editor year ending 4-15-	
"	9 Oconee Co. Med. Soc. ...	27.00		'08	500.00
"	9 Abbeville Co. Med. Soc...	48.00	"	14 S. C. Baker, Expenses	
"	10 Orangeburg Co. Med. Soc.	36.00		councilor	33.85
"	11 Charleston Co. Med. Soc.	144.00	"	15 Walter Cheyne, salary sec-	
"	11 Fairfield Co. Med. Soc...	24.00		retary to Jan. 1st, '08,	
"	11 Marion Co. Med. Soc....	17.00		and telegrams	128.16
"	11 Greenville Co. Med. Soc.	123.00	"	18 Bank exchange on check	.15
"	11 Marion Co. Med. Soc....	15.00	"	20 Walter Cheyne, expenses	
"	11 Med. Soc. Columbia.....	147.00		as Secty. Anderson, etc	23.15
"	12 Greenville Co. Med. Soc.	3.00	"	20 Expenses Annual Ora:or	
"	13 Charleston Co. Med. Soc.	3.00		R. Cabot	70.00
"	13 Saluda Co. Med. Soc....	3.00	"	20 Expenses delegate A. M.	
"	14 Florence Co. Med. Soc...	33.00		A., J. H. Hamilton ...	70.00
"	14 Horry Co. Med. Soc....	30.00	"	16 Bank exchange on check	.15
"	16 Barnwell Co. Med. Soc...	15.00	"	20 Bank exchange on check	.10
"	16 Georgetown Co. Med. Soc.	6.00	"	21 Expense Tr. C. P. Aimar	17.25
"	18 Newberry Co. Med. Soc...	9.00	"	21 Witherspoon Bros., Furni-	
"	22. York Co. Med. Soc....	6.00		ture for Sect'y's. office	
May	8 Newberry Co. Med. Soc.	3.00	"	22 The State Co., Notice to	
"	12 Chester Co. Med. Soc...	6.00		Members	3.75
July	3 Darlington Co. Med. Soc.	3.00	May	2 Bank exchange on check	.10
"	29 Laurens Co. Med. Soc....	15.00	"	5 F. K. Myers, Rept. 60th	
Aug.	4 Aiken Co. Med. Soc....	12.00		annual meeting	100.00
Sept.	7 Horry Co. Med. Soc....	6.00	"	23 American Bonding Co., for	
"	19 Orangeburg Co. Med. Soc.	12.00		treasurer's bond	10.00
Nov.	30 Georgetown Co. Med. Soc.	3.00	"	23 News and Courier for	
				special notice	5.60
		\$2576.41	"	23 J. J. Furlong, stamped en-	
				velopes	5.25

Cash Expended.

1908.		
Jany.	16 Dr. J. W. Jersey, Journal	
	expenses	500.00
Feby.	5 Dr. Legrand Guerry, Send-	
	ing telegrams	16.92
"	21 The State Co., Printing	
	Circular	3.00
"	24 Walter Cheyne, Expenses	
	Secretary's office	17.00
"	25 Bank exchange on check..	.15
"	27 The State Co., Record	
	cards	5.50
March	2 The State Co., Envelopes	
	and letter heads	10.95
"	6 The State Co., Making	
	Die and Stamp	14.40

June	17 Walter Cheyne, expenses	
	to Chicago	104.75
May	13 Bank exchange on check	
July	2 Dr. T. G. Croft, expenses	
	councilor	13.28
"	10 Bank exchange on check	.10
Aug.	2 Dr. Walter Cheyne, expen-	
	ses Polk's Register, etc.,	
	postage	11.50
"	4 Bank exchange on check	.10
"	21 R. S. Cathcart, expenses	
	A. M. A.	129.50
Sept.	8 Bank exchange on check	.10
"	21 Bank exchange on check	.10
Oct.	19 Dr. J. W. Jersey on ac-	
	count editor's salary ..	300.00

Nov.	5	Dr. J. L. Dawson	3.89
"	9	Expenses of Secty's office, stenographers and type- writing	100.00
"	30	Dues over-paid for member Aiken Co. Med. Soc... 3.00	
Dec.	29	C. P. Aimar, M. D. for treasurer's comms. 1908	195.55
"	31	Balance on hand	54.19
			<hr/>
			\$2576.41

Condensed Statement, 1908.

Balance cash on hand January 1,	
1908	620.91
Cash collected January 1 to Dec.	
31, 1908	1955.50
	<hr/>
	2576.41
Expenditures January 1 to Dec. 31,	
1908	2522.22
	<hr/>

Balance cash in bank Jan. 1, 1909 \$ 54.19

**Statement of the Fund for the Prosecution
of Illegal Practitioners not Included
in the Foregoing.**

Balance cash on hand Jan. 1, 1908	\$ 291.32
Interest from bank	10.70
	<hr/>
	\$302.52
Cash extended Kershaw Medical Society legal services..	37.25
	<hr/>
Balance	\$ 265.27
Respectfully submitted,	
C. P. Aimar, M. D., Treasurer.	
	<hr/>

Dr. Mayer: The constitution requires that that report be audited and this fact so stated.

Dr. Aimar: The books have been audited and so marked, and the vouchers found correct.

Secretary's Report.

Gentlemen: I beg to make the following annual report. The changes in the railroad tariff law in the state compelled us to go back again to the certificate ticket system. The constitution requirements have all been complied with. The design of the association member's pin, proposed to be adopted, is now in my hands, ready for inspection.

It has seemed well to me to review the strength of the constitution under which we have been organized during the past five years. The verbiage and the entire plan of organization can hardly be improved; but the frequent changing of the executive officers is against the interests of the association. The office of councilor is of so great importance that practically the strength of our association is vested in this office. If a councilor could keep in touch with his

county societies, not once during the year, but throughout the whole year, guiding, advising and directing the societies, for whose welfare he is responsible, then and only then, the spirit of the constitution will be carried out. Annual changing of important standing committees results frequently in no accomplishment of work. Members of important standing committees should be elected for terms of one, two and three years, thus rotating in office and always having members acquainted with the work to be done.

I would recommend that the Committee on Tuberculosis of the State Medical Association, be made a standing committee, whose members shall, after nomination by the council, be appointed by the president.

I would recommend that in the redistricting for the councilor districts, one more councilor be added, making a total of eight councilor district. Conucilors will then have less territory and may look after their counties closely. The idea in my mind is to equip our association along permanent lines of work, not proceeding as we have been, on a one year basis entirely. The relationship to the American Medical Association and to our sister state associations is becoming yearly closer and more intimate as evidenced by the communications exchanged so frequently. The medical profession today is more firmly organized than ever before. It is earnestly to be hoped that from the new organization of county secretaries more uniform methods will result from each county of the state.

All of which is respectfully submitted.
Walter Cheyne, M. D., Secretary.

Motion by Dr. Swygert that the report be accepted.

Recommendation by Dr. Burdell that report be referred to a committee, who shall consider the requirements contained therein and report back at the second session of the body, to be held that night. Motion carried.

President appoints on that committee, Drs. Swygert, Burdell and Tripp.

Report of Scientific Committee.

The scientific committee begs to report that they have, as directed by the House of delegates at Anderson in April, 1908, divided the scientific discussions into two sections, a surgical section and a medical section. After much arduous work they have procured a program consisting of 22 surgical papers and 26 medical papers. Trusting that the work of this committee will prove satisfactory and profitable to the society.

Respectfully submitted,
J. T. Taylor, M. D., Chm. Scientific Com.

It was moved and seconded that this report be adopted, and motion carried.

Report State Board of Health.

Mr. President and Members of the House of Delegates, South Carolina Medical Association:

Gentlemen: I have the honor to submit the following twenty-ninth annual report in behalf of the executive committee of the state board of health.

The wisdom of the General Assembly in providing for the election of a state health officer has been amply demonstrated during the past year. Through the unremitting activity and earnestness of the present incumbent your executive committee has been able to keep in closer touch with the sanitary conditions of the state and to handle far more efficiently the problems which have been laid before them. There has been no wide-spread epidemic to claim our attention, but a threatening outbreak of typhoid fever occurred among the students of Winthrop Female College shortly after the opening of the institution last fall. The situation was taken in hand immediately by the state health officer, and later the entire board convened at the college for the purpose of investigating the source of the infection and the cause of its spread. As a result of the inquiry the conclusion was reached that the disease was most probably fly-borne and the authorities were advised as to the proper measures to be enforced in order to prevent a recurrence. The outbreak proved to be of limited extent and of brief duration; only seventeen cases developing in a population of 808, with no deaths. Other minor outbreaks of typhoid fever investigated by the state health officer occurred in York County, at Olar, at a suburb of Bennettsville, and near Monck's Corner.

Scarlet fever has received the attention of the health officer in the Piedmont section, and in Kershaw and Williamsburg counties. Scattered cases of smallpox have been reported. Recently an outbreak occurred in York county comprising a total of fifteen cases with nine deaths. These cases serve to show that the fires are still smouldering, and warn us against relaxing our efforts to enforce vaccination.

In this connection I would plead with the members of the association and aid the executive committee of the state board of health by making the monthly returns requested by the state health officer. This association is the legal state board of health, we are only its executive committee organized for the purpose of carrying on its work. The collection and recording of vital statistics is not done for our delectation. In order to institute effective measures for the prevention of infectious diseases it is absolutely essential that we be supplied with reliable data which can only be obtained from individual physicians. The

work of suppressing infectious diseases is your work, gentlemen of the state board of health, and because you have committed its management to your executive committee, it is none the less your responsibility still. We are making a sincere effort to carry on this work for you as thoroughly and as efficiently as possible. Is it too much to ask your co-operation?

Your executive committee has endeavored to lend their assistance to the superintendent and the board of regents of the state hospital for the insane to secure the segregation of the tuberculous inmates. The existing conditions are intolerable and the authorities have been trying vainly for several years to have them remedied. We urge every member of this body to take up this important matter with his local representative and use his personal influence to secure the passage of proper legislation.

Through the efforts of the state health officer and Dr. W. M. Lester a tuberculosis exhibit was opened at the state fair in Columbia, under the auspices of the executive committee of the state board of health. This exhibit attracted most favorable attention. The state health officer has also published for general distribution a leaflet upon the "Restriction and Prevention of Tuberculosis."

Upon the suggestion of Dr. J. W. Babcock the executive committee lent its assistance in calling a general conference on pellagra which was held at Columbia on October 29th last. This effort to secure a full discussion of pellagra was highly successful and resulted further in stimulating a deep interest in tropical diseases in general.

The work of carrying out the provisions of the Pure Food Law has been necessarily restricted by the limited appropriation set aside for this purpose. Enough has been done, however, to demonstrate the importance of endeavoring to obtain more liberal support from the General Assembly. Our official analyst, Dr. F. L. Parker, Jr., made analyses of 263 samples including olive oil, tomato catchup, buttermilk, residue, vanilla extract, lemon extract, strawberry extract, orange extract, banana extract, pine-apple extract, wild cherry extract and peach extract. "Of the total of 263 samples, 17 were found to be mislabeled, 66 artificially colored, and 119 adulterated. Only 23 2-10 per cent. of the samples examined were found to be standard in every respect."

The inspection of fresh meats shipped from Charleston and Columbia has been made by Dr. G. McF. Mood and Dr. F. A. Coward respectively. To insure the shipment of only the meats passed by the inspectors an official stamp is used. The objection raised at first was soon overcome inasmuch as the better class of shippers realized very quickly the advantages which would accrue to them from the stamping. While it is too early to report definitely

upon the good accomplished by this work, there is no doubt that consumers have profited by the greater care experienced by shippers in handling meat.

In conclusion I wish to announce that the executive committee of the state board of health at last sees the way clear to establish a central laboratory for bacteriological work in connection with which will be undertaken the Pasteur treatment of persons bitten by rabid animals.

Respectfully submitted,

(Signed) Robert Wilson, Jr., M. D.,
Chairman Executive Committee of the
State Board of Health.

It was moved and seconded that this report be adopted, and motion carried.

Report of the Councilors.

First District; Dr. J. T. Taylor, Councilor:

The councilor for the first district begs to report to the House of Delegates that during the past year he has visited each of the medical societies in his district, viz: Charleston, Colleton, Beaufort, Hampton and Dorchester. The sixth county of this district (Berkeley) having no society, this being due to the fact that there are very few physicians in this county and they being widely distributed and in inaccessible places.

The work of these societies has been most satisfactory, the scientific work done by the Charleston County Medical Society being too well known to require mention here. What I do wish to emphasize, however, is the manner in which they support the rulings of this body in regard to the examinations for life insurance. Not only is this so in Charleston where the ethical members of the profession suffer much at the hands of a few men who persistently refuse to affiliate with the county society, with which they should be united, but also in the other county societies where the physicians of the rural districts steadfastly remain obdurate to temptations from without.

Respectfully submitted,

J. T. Taylor,
Councilor First District.

On motion, report adopted.

Second District: Dr. T. G. Croft, Councilor:

To the President South Carolina Medical Association:

As councilor of the second district, I beg to make the following report:

I am exceedingly sorry that on account of serious impairment of my health during the past year I have not been able to visit my counties as I should have done as councilor, and, therefore, will have to crave your

indulgence and make a very limited report.

The county of Lexington has a very flourishing and active society, with Dr. W. L. Kneece as president, and Dr. J. J. Wengard as secretary. This society only meets quarterly, but its meetings are generally well attended, and much interest is shown in them; so that we may report it as one of the most live and best societies in this district.

The society of Orangeburg is in members quite a large society. It has as its president Dr. W. L. Pou, the venerable and faithful president since its organization. Dr. D. D. Salley is now secretary. This society is in a flourishing condition, and I am pleased to be able to endorse the good work that they are doing. It meets monthly and the meetings are generally fairly attended, at which they have good discussions.

The Aiken county society meets monthly. It has as its president Dr. C. A. Teague, and Dr. T. A. Quattlebaum as secretary. There is no lack of interest in this society, and we frequently have excellent papers and discussions. During the winter months we have many visitors from the north who attend our meetings while residing in the town. The society is fully up to the average society in our state, and our secretary is doing good work.

I am sorry to report the lack of interest in the counties of Barnwell and Bamberg. It is true, however, that the physicians in these places are few, and the connections possibly bad for them to meet, yet, they have not, I think, had the interest they should have had in their societies. They are both practically in a dead state. The meetings are frequently called with only one or two in attendance, so it is impossible to keep the society alive. Some of their members have gone and joined other county societies, especially the Aiken County Medical Society. Perhaps another year, when they have realized the advantages of being connected with the State Medical Society, they may take more interest and make another effort. I regret my inability to make a more satisfactory report from these two counties.

Under the backing of the Aiken County Medical Association and the faithful and energetic work of Dr. Fillmore Moore, a large anti-tuberculosis league has been formed and is doing splendid work. A trained and intelligent nurse has been employed for the year, who gives her entire time to looking after tuberculous cases by giving all the necessary instruction to these patients, and by cleaning and disinfecting all houses that have been used by tuberculous patients. Too much credit cannot be given Dr. Moore for his splendid work.

Respectfully,

T. G. Croft,
Councilor Second District.

Adopted.

Dr. O. B. Mayer asks that report of the Committee as a whole, be deferred until after the meeting of the House of Delegates.

Third District; Dr. O. B. Mayer, Councilor.

To the House of Delegates of the South Carolina Medical Association:

Gentlemen: I am glad to report that the counties forming my councilor district all have good live societies, and while the membership is not as large as it should be, as there are still in each county some superior physicians who have not become members of any county society, yet those who have become members of their county societies are working hard for the maintenance of good societies, and the betterment of the profession. I wish to publicly commend those who have done such good work in their separate counties.

At the meetings of those societies that I last visited there were either very interesting cases shown, or instructive papers read, all of which should have found their way to our Journal for the benefit of its readers. The great benefit of the county societies to the profession is becoming more and more apparent, and I believe the interest in them is increasing, and will continue to increase as their importance becomes more generally recognized, and I hope the time is very near when every physician will be ashamed not to be a member of his county society.

O. B. Mayer,
Councilor Third District.

Adopted.

Fourth District: Dr. H. R. Black, Councilor:

(Read by the Secretary in Dr. Black's absence).

Mr. President and Gentlemen of the House of Delegates:

In this, my annual and last report of the fourth district, I beg to state that I have visited all of the different societies, with the exception of Anderson, in my district since our last meeting. I am willing to make the assertion that nowhere in South Carolina is the progress of medicine and surgery more perceptible than in the fourth district, not only has there been an increased membership in our county medical societies but there has been a corresponding increase of medical activity and influence and medical education. Throughout the entire district the personnel of the profession has much improved during the past few years and we are beginning to realize the benefits that come to a well organized profession. Each society seems to have an aim—an external purpose, something besides its own self-perpetuation, namely scientific study, practical medicine and sur-

gery and scientific sanitation. New lines of work are being developed in each county society; the specialist has arrived; patients of every kind and class are being as scientifically and as successfully treated in this section toady as anywhere in the South, or perhaps, anywhere in the East, with possibly a few rare exceptions. This result is the work of a recognized profession. Organization is the only preparation for successful work. It is the foundation; it is the cornerstone. It is well laid in the fourth district. It is bearing good fruit, much fruit.

Only a few years ago, we were in a state of chaos. There was a lack of system; there were bickerings; today there is a fellow-feeling, a social feeling, a professional feeling. We are united in the grandest and greatest of all, namely humanity, in the prevention and the elimination of diseases, and in the prolongation of human life.

With modern medical organization, with the achievements of Lister, Koch and Pasteur, the possibilities of medical science should be far greater in the future than has yet dawned upon the medical world. With the combined efforts of the masterly minds, now engaged in laboratory work, bacteriological study and scientific research, may we not hope that in the near future some one will give to us a remedy, possibly in the form of a serum, that will exterminate tuberculosis and a key that will unlock the mysteries of cancer?

I want to suggest to the House of Delegates the district association idea. In the fourth district, we not only have our county societies doing good post-graduate work, but a district association with a splendid membership from the six counties, Anderson, Oconee, Greenville, Pickens, Spartanburg and Union, representing the very best talent in the district, and I believe as good as there is in the state.

The association affords an opportunity for any member of the profession in the six counties to become acquainted, and places within their reach an active organization whose respective members are engaged in almost every conceivable line of professional work; where they can have free intercourse and an exchange of ideas. Not only is such an association a benefit to its individual members and to the public, but each county society becomes more aggressive on account of the personal contact of one member with another. I therefore recommend the district association idea to you in this my last report.

I desire to thank the House of Delegates for the honor of representing the fourth district as its councilor. Especially do I appreciate the kind and hearty receptions given me on my annual visits to the respective societies. I can bespeak for them a successful future and assure you that you can always depend upon the fourth district

to contribute its quota toward the relief of suffering humanity and to the support of our association.

In conclusion, long live the fourth district, the House of Delegates and the South Carolina Medical Association.

H. R. Black, M. D.,
Councilor Fourth District.

Adopted.

Fifth District; Dr. W. B. Cox, Councilor:
Report not read.

Sixth District; Dr. F. H. McLeod, Councilor:

Dr. McLeod reported as follows:

I have to report that we have an organization in each county, and while in some of the counties we have not as large a membership as we would like, there is more interest being taken than at any time since I have been councilor, for the past six years. The county society of Marion has been reorganized recently. I was there some weeks ago, and was surprised at its progress.

Adopted.

Seventh District; Dr. F. M. Dwight, Councilor.

Mr. President and Gentlemen: I beg leave to make this my first annual report of work done in my district to the House of Delegates. I am very glad to be able to report that my district is for the most part in a most satisfactory condition. The post-graduate work recommended by the American Medical Association did not take at all with county societies. They prefer to read essays, report clinical cases and discuss generally cases that come under their observation, from one meeting to another. We had the disagreeable duty of prosecuting one illegal practitioner in my district, who failed before the state board of medical examiners—a negro named Van Buren. We thought we had a very strong case but a verdict of not guilty was ordered. He is still at large and engaged in what some doctors call the practice of medicine, in Columbia. For this prosecution we spent \$50.00 of the association money in lawyer's fees. The Columbia Medical Society did all in their power to assist in this prosecution, but the jury was against us, why we cannot see. Our district is at present in a very harmonious condition. I have visited in my professional capacity Columbia, Sumter and Clarendon Medical Societies; was prevented from visiting Georgetown on account of sickness. I had a very satisfactory correspondence, however, with Georgetown through their secretary, Dr. J. LaBruce Ward. I did not appoint to go to Lee or Williamsburg, as repeated letters to their secretaries brought no response. This was hard to understand as my letters were not returned

to me. Columbia Medical Society is in a very flourishing condition, with 52 members and an average attendance of 20. They meet every second Monday night.

Sumter County Medical Society has a membership of 18 with an average of 8. It is in a live, attractive condition. Meetings monthly. Clarendon County Medical Society meets quarterly, with a membership of 15, average attendance 6. I found this society was not in such a flourishing condition, but its members are alive to the importance of their work, and is now in a much better condition. Georgetown Medical Society meets monthly. It is hard to get the out-of-town members to attend. They have a membership of 9, average attendance 3.

By request of our chairman, I attended a called meeting of council in Columbia, last October.

All of which is respectfully submitted,

F. M. Dwight, M. D.,
Councilor Seventh District.

Adopted.

Dr. Cheyne: In regard to your failure to get reply from Williamsburg, to which you refer. That was a previous secretary, who had resigned, and who did not answer the letters. It does not refer to the present secretary-elect.

Dr. Dwight stated that he was very glad to know that, as the same thing had happened in Georgetown.

Dr. O. B. Mayer: I wish to say, in regard to Dr. Black's paper. He omitted one very important thing. A prosecution was carried on in his district, while he was in Cuba. The prosecution was begun in Greenville, and the State Association contributed \$25 to help defray the expenses of the prosecution, and I had hoped that he would tell about that in his paper. I do not know whether the party was convicted, but the association contributed \$25 to help prosecute that action.

The President: I should like a vote upon when we shall expect the report of the Anti-Tuberculosis Committee.

Dr. Burdell: Mr. President, I move that that report be heard tomorrow. Motion carried.

The Carroll Relief Fund.

Secretary: I have some communications from the American Medical Association, under the head of new matter, if you have the patience to hear them. Letters were here read.

Dr. Wilson thought the association should make a contribution to this fund, if only a small one; that Major Carroll was a medical hero and had probably sacrificed his life in behalf of society.

Dr. Dwight made the motion that a collection be taken up at some proper time.

Dr. Carroll made an amendment to Dr. Dwight's motion that a small sum or a sum, be appropriated from the funds of the association to make such contribution.

Amendment to Dr. Dwight's motion accepted.

Dr. Carroll also stated that he believed "Dr. Carroll had done more for the advancement of the medicine in this southland of ours than the ordinary man we send off as delegates, and if we can spend money in sending delegates to meetings where we don't get anything much except the pleasure of the delegates, we ought to spend money for this commendable cause."

Dr. T. P. Whaley said it was in the service of the government he lost his life, and they should contribute to the support of his family, but when congress has failed to do this, "it is our duty, as medical men, to contribute something for this family's support."

The President then asked how many were in favor of contributing \$50 of the associations funds towards alleviating this case, and that amount was unanimously decided upon.

Dr. Whaley moved that, "Inasmuch as there is apt to be some dispute as to how this money is to be paid, I move that the House of Delegates request the council to see that this money is paid to the proper authorities.

Motion carried.

Dr. Cheyne here stated that the proper party to send this fund to was Major M. W. Ireland, U. S. A., chairman of the committee for the Relief of Major Carroll's widow and family.

As to Contract Practice.

Dr. Carroll: I have been asked by the House of Delegates to get a motion on contract practice. The question came out before our society and we wrote the other societies, and there was a diversity of opinion. Some thought it was legal, and others didn't. I understand from our secretary

that the Charleston society did not seem to have any particular rule in regard to that, and we wanted to have it definitely settled whether contract practice was legal or not.

The President: My recollection is that this matter is not touched upon in our constitution, and unless the House of Delegates sees its way to go out of its way and take up this question, it is something entirely new. I have not a copy of "The Principles of Ethics" with me. Under this head, coming under the code of ethics, the constitution would say that all such matter should be referred to the council without discussion.

Dr. Carroll: I have been especially requested by the members of the Dorchester society to bring that matter up.

The President: Then I will request the council to take this motion under advisement and report at the session tonight.

Dr. Carroll, in answer to Dr. Mayer's question as to what he considered "contract practice," replied that, for instance, the mill practice, at the general run of fifty cents a head, or taking any family at so much a year. In other words, not sticking to the fee bill.

Concerning Midwifery.

Dr. C. A. Norton: Mr. President, under the head of "miscellaneous business," the Horry County Medical Society instructed me to say that they favored a license system for practicing midwifery, and that the House of Delegates pass upon this question. That the House of Delegates go on record as favoring the passage of a state law licensing those practicing midwifery, such method of licensure to be determined by the House.

Dr. J. T. Taylor: We are going to get now some more resolutions to be taken before the House of Representatives, and we are going to lock horns, and they will say that now we have that other law passed, we are after forcing out midwives and taking the whole thing in hand, and the first thing we know we are going to be knocked out of what we did get from them.

Dr. C. F. Williams: I move that this be referred to the committee on Public policy and legislation, and have that committee report back to this body.

The President: I would suggest that the Doctor explain what the provocation is that caused that county to take this action.

Dr. Munson: The time may come when this practice shall be limited to those with more or less education. I hope you will discuss the subject thoroughly.

Dr. Norton: I daresay there is a different condition in every county in South Carolina. Of course in many sections this condition does not exist. It is getting to be serious up my way. There are midwives up there actually using forceps. I don't know whether they sew up the perineum, but if they don't, they think themselves capable of doing so. I made that motion because we want to get this thing before the House of Delegates. We want to protect our women. They need protection all over the state. We have men midwives, who practice right along with the women. We have some good, and some very bad midwives. The sole object of this resolution was to get this practically before the state. Our women require protection. Some men get a midwife simply to save money. I just want to get you doctors to thinking about this thing. I know the law is not going to give it, because we have too many laws now. We need more education of the laity, and for the laity.

Dr. T. G. Simons: I think this matter very important. Unfortunately we have in Charleston a large number of these midwives, some few are cleanly; some--!! I know of one woman who is a walking pestilence. The immense number of children whose eyesight that woman has destroyed--she is dead now, thank heavens! (Laughter) And I think we could invoke the aid of the law more on the subject of eyesight than anything else. That is very essential. Perhaps there are other things too, but I think the prevention of criminal malpractice of these ignorant and filthy midwives should be brought to pass.

The President: The motion is that this matter be referred to the committee on public laws and legislation, and I will ask you to confine your remarks to that.

Dr. Norton: Mr. President, I would like to ask the privilege of appearing before that committee.

The President: Certainly you will be per-

mitted to do that, and any other gentleman who has any other idea as to a practical regulation will be welcome to appear before that committee and give their views, so that we may have an intelligent report tonight.

Association here took a recess until eight o'clock.

CONTINUATION OF MEETING OF HOUSE OF DELEGATES. TUESDAY EVENING, APRIL 20TH.

The president called the meeting to order and stated that "When we adjourned we were under the head of "miscellaneous business." here were several reports, however, that we had passed over. I think these had better be read and then we can go back to miscellaneous business."

Dr. Boyd, in response to the president's request for his report on "Public Policy and Legislation" stated that Dr. Guerry was the chairman of that committee and was not present.

Dr. Cox, from the Fifth Councilor District, stated that he had no report to make.

Report of Dr. Walter Cheyne, Delegate to the American Medical Association.

Gentlemen: As your delegate to the American Medical Association, I hereby respectfully make the following report:

The business of the American Medical Association is vast in its extent. No one who has not attended a session of the House of Delegates can understand how important to the medical profession is this work each year. The most important thing in my mind that came up was the question of advertisements in the state Journals where they introduced and passed a resolution recommending that no advertisement should be inserted in a state journal without the approval of council on pharmacy. I alone of all the delegates opposed this. It was simply that my idea of home rule was violated. I believe in ethical preparations certainly, but I wish to judge these matters for myself. I altogether believe that the council on pharmacy is honest, sincere and most earnest in its work.

Now, I believe that our council is able to decide what advertisements it wants in its Journal, and also the editor, whoever he may be, and I do not like the dictation of others in regard to the choice of advertisements. That is my only reason. I was voted under, snowed under, but at the same time, I have the same opinion today,

that home rule is the best rule. I would like an expression of the House of Delegates on this very question to aid me in my work as delegate during the next session in Atlantic City.

There is no question that the American Medical Association is of vast help in making legislation uniform, that the requirements of registration and the laws referring to the practice of medicine are vastly helped by their action taken yearly. There is no doubt that the colleges must advance their standard where they are below the uniform standard demanded by the requirements of the council on medical education. All these things are directly to the advantage of the medical profession in the United States, and they add dignity to the profession by such advances as are required from year to year.

One thing I have learned by my one year's service as delegate, is that to be effectual in power and influence, the delegate must not be changed yearly. He must have the knowledge derived from service in the ranks and in that way he may do the medical profession good and also his state association.

I have the honor, as secretary of your association, to fill the office of president of the Association of the State Secretaries and Editors and expect to preside over this association at Atlantic City.

The first vice-president is Dr. Wisner R. Townsend, N. Y.; second vice-president, Philip Mills Jones, San Francisco, Cal.; and secretary, L. H. South, Bowling Green, Ky. The purpose of this association is to get all the state secretaries and the state editors in uniform line of work, working together not only for their own states, but also for the benefit of the medical profession all in organized work.

I insert an editorial from the New Jersey Journal which expresses my individual views exactly. (See Jour. S. C. Med. Assn., Sept., 1908, p. 442.—Ed).

Respectfully submitted,
(Signed) Walter Cheyne, Secty.

This report having been read, Dr. Cheyne continued further: "You notice I said 'recommending.' When I got up to oppose this, several others on the floor interrupted my talk by saying: 'Yes, and next year we will make it compulsory.' This was a recommendation, simply, and I think that was the reason that called out this editorial from the New Jersey State Journal, by Dr. Childs; and I will thank you to take this matter up and tell me whether you consider that the Council on Pharmacy must be obeyed, and tell me whether I must support anything of this sort, without authority of the council."

The President: There seems to be a little misunderstanding among some of the gentlemen who are occupying seats in the hall. This afternoon, during our meeting, one of the gentlemen came to me and asked to rule on this question. He had the impression that he was not a member of the House of Delegates; that he had no right to make or vote on a motion, but being a member of the South Carolina Association, he had a right to rise and speak to a motion. Of course, gentlemen, you understand that is not proper. Only members who are regularly enrolled as a member of the House of Delegates have the right to make or amend a motion. A good many are sitting in here, and of course, from memory, I don't know who is a delegate and who isn't. Of course only delegates have the right to occupy the floor, and I will have to leave it with you to observe that rule.

Concerning Dr. Cheyne's report, I would like to say to you from my own observation—because there is no election coming up at this time—we are entitled to two delegates to the American Medical Association, and neither delegate's term expires this meeting. I want to endorse what the secretary has said as to the advisability (if we wish to wield any influence) of continuing our delegates in office as long as possible. Heretofore it has been customary to change the delegate year by year. Until the re-organization of this body it was customary (we were only entitled to one delegate) to elect the retiring president, as a matter of respect or honor to him, as a delegate to the American Medical Association. Of course that does not hold now, because our delegates are now elected for the two years, and there would be no vacancy for the president to be elected to. We must choose a good, competent man. If we get the right sort of a man once, let's keep him there. It is a large, deliberative body, and you know that is the legislative body of the National association; that you must become acquainted with the members of the association to wield much influence. Our men went there as novices, and of course they had to make acquaintances from the start, and they necessarily wielded little influence; but year by year, if we are able to keep our men in office, we will

wield more influence. Men that have been there year after year carry everything their way, but when a new man gets up, he is frequently laughed at. So I believe in first getting right men, and then keeping them there, unless there is some necessity for changing them.

The President, in answer to Dr. Dwight's statement that the House of Delegates should endorse, or not endorse, what Dr. Cheyne has done, said that it would be in order to make a motion, one way or the other.

Dr. Dwight: I move that we endorse Dr. Cheyne's action in the matter—concerning the accepting of the advertisements.

The president, in answer to a query if "we can secede from the National association," said that "we can if we see fit."

Dr. W. R. Mood then moved that the delegate maintain his position, and if he is voted down, that he accept as gracefully as possible.

Dr. Dwight: I want to make myself perfectly clear. I have no idea of seceding. We will submit to the inevitable and be loyal to the end; but I want us to back up our delegate and let him stick to his friends, and then, when he is voted down, let him submit.

Dr. Weston: I would like to ask Dr. Cheyne why he took that position? Does he know of an instance where they have acted unwisely?

Dr. Cheyne: I put it plainly in my report, I thought. It was simply because my sense of home rule was violated. I think that it does not do for somebody in Chicago, however well meaning they may be, to tell us what advertisements we shall put in our South Carolina Medical Journal. They may be, and no doubt are, perfectly sincere, but I maintain that our council who have been put in charge, financially and otherwise, of the Journal, are competent to have a perfect freedom of choice in the management. No doubt you have seen in the papers considerable animosities indulged in between certain drug houses and the American Medical Association, and the spirit is growing, and no doubt sometimes between these men, who act entirely as chemists, there must be a little spirit of unfairness perhaps, influencing their judgment. Now our council has not that to contend with. It just says, if that drug is a proper drug; if it

isn't a quack drug, and if it is made by a reputable firm, that they will admit it, and they should be the judges of that fact, and not the gentlemen in Chicago.

Dr. Carroll: This seems to narrow the thing down as to whether it is constitutional. If, according to the constitution of the American Medical Association they have a right to do this thing, I don't see how the action can be condemned.

Dr. Carroll, in answer to Dr. Cheyne's comment that New Jersey was kicking, said that that was their Journal.

The President: This simply amounts to a vote of confidence in our secretary. I don't think it is going to have any specific action.

Dr. Carroll thought if the body was to put itself on record as opposing the action of the American Medical Association, that a vote of confidence in Dr. Cheyne was not necessary, as everyone had confidence in him.

Dr. Weston: It seems to me that this council on pharmacy is a part of the American Medical Association, just as much so of South Carolina as of Pennsylvania. They have employed these chemists to look in this matter. Our state council has no such organization as they have, and it seems that this howl that has gone up against their ruling, has been very much like the dog, on being hit. In view of the fact that we are an integral part of that association, I think we should instruct Dr. Cheyne to act in accordance with that board of pharmacy. If that board is wrong, then let him use his influence to turn those men out.

Dr. Earle: I think to this board of pharmacy is due quite a good deal of credit, in preventing the advertising of nostrums in America. And, in order that their influence may be extended in South Carolina, instead of attempting to secede, or go against anything, let their influence be greater for the good—if we do not endorse thoroughly everything that they have done. I feel possibly Dr. Cheyne did not mean exactly what he said, when he said the council on pharmacy wished to dictate what advertisements should go in a medical journal. They do not, I am sure, attempt to dictate to any medical journal as to what advertisements shall be placed in any journal, but

they do endeavor to point out, in different preparations, the secret of their manufacture, and that they shall not be advertised. It is not to dictate what shall go into a journal, but what shall not; and I feel that we would be doing an injustice to our body if we let it go out that we were working against the body on pharmacy of the American Medical Association. At the same time, I do not wish to say anything against our delegate at the Chicago meeting.

Dr. Carpenter: I move to sustain motion so that the matter may remain in statu quo.

The motion was tabled.

Dr. Weston: I do not wish to say anything in censure of Dr. Cheyne.

Dr. Dwight: I would just like to put myself right. I understood Dr. Cheyne wanted us to express our opinion as to whether we back him up or not. That was all. As the matter stands now, Dr. Cheyne does not know how he stands.

Dr. Cheyne: Oh yes, I do. I was snowed under before, and it looks like I am snowed under again.

The new members who had just come in were enrolled and accorded seats in the House of Delegates.

Report of Committee on Secretary's Report.

Dr. Swygert: Mr. President, the committee reports favorably on the secretary's report and on all the recommendations therein—increasing the councilor districts to eight and the tuberculosis committee should be a standing committee.

The President: Gentlemen, you have heard the report submitted by this committee on the secretary's report. The effect of it is that the councilor districts be increased from seven to eight, and that the anti-tuberculosis committee be made a standing committee of the association—that is, put on a par with any of the committees here, on public policy and legislation, on scientific work, etc. It is in order to adopt this report of the committee.

Adopted.

Report of the Board of Medical Examiners.

Mr. Chairman and Members of the House of Delegates: I beg to make the following report of the Board of Medical Examiners:

At our regular annual meeting, last June, there were 70 applicants, 63 males and three females, of these 54 were white (53 males and 1 female) and 16 were colored (14 males and 2 females). Of the 54 whites, one took the osteopathic examination. Of the 70 applicants, one failed to take the examination on account of illness. Of the 69 applicants who took the examination, 48 passed and 21 failed. All of the members were present throughout the meeting except the members from the third district. The board as a whole prepared the questions and examined the papers.

The questions of the individual examiners were considered and approved by the whole board and so became the questions of the board. After the examination the board adjourned for two weeks, and during this time carefully examined the papers of the applicants. Meeting again, the board, as a whole, passed upon the papers of the applicants, those of the failures being carefully reconsidered.

The board regrets to report that it has seen no improvement in the preliminary education of the applicants for a number of years, and suggests that the legislative committee endeavor to have the medical law so amended as to raise the standard of preliminary education to at least a certificate of high school education.

Quite a number of states have refused to reciprocate with this state because of the junior and senior curriculum clause in our law, and we suggest that the legislative committee be instructed to obtain the repeal of this objectionable clause, and have the law so amended that all applicants for the practice of regular medicine will be required to take the same examination.

The following members' terms expire at this meeting: 1st district, Dr. W. P. Porcher, of Charleston; 3rd district, Dr. J. O. Rosamond, of Easley; 5th district, Dr. R. A. Bratton, of Yorkville; 7th district, Dr. J. J. Watson, of Columbia; at large, the unexpired term of Dr. W. M. Lester, of Columbia.

(Signed) J. L. Napier, M. D.

The President: There are several recommendations contained in that report, and it might be best, possibly, to submit this report to a committee, similar to the one on the secretary's report.

Dr. Tripp: I move that it be referred to a committee.

Seconded by Dr. Weston.

The President: I will have it referred to the same committee that reported on secretary's report: Drs. Burdell, Swygert and Tripp.

The President: I have been requested, gentlemen, to have read a portion of the

Constitution, and I will ask the secretary to read this.

(Sec. 1, Chap. 5, read by secretary).

Dr. Weston: I move that we now adjourn until three o'clock Thursday. Motion carried.

THURSDAY AFTERNOON, APRIL 22ND.

Called to order by the president.

Report of Council.

(Read by Dr. O. B. Mayer, Chairman).

The council has tried during the past year to maintain the interest of our profession in the county medical societies, believing the preservation and improvement of them to be of the greatest importance. The profession in this state should see that a live county medical society exists in every county, so that the members of the profession shall have the benefit of a medical society, and also that the state medical association shall have the assistance and support of the profession in all parts of the state.

There are at present no county societies in five of the counties—Barnwell, Bamberg, Berkeley, Calhoun and Lancaster. The division of the state into new councilor districts is a very difficult task, and the division which is submitted, we hope will prove more satisfactory and beneficial.

It is very hard work for the councilors to keep an oversight over six counties, and make an annual visit to each of them, as is provided for in the constitution. We have, therefore, recommended an increase in the number of councilor districts, so as to give an average of five counties to each district, making eight councilor districts. This will require the election of a councilor for this district if this recommendation is adopted—Barnwell, Edgefield, Aiken, Hampton.

During the past year two prosecutions were begun—one in Columbia, and one in Greenville. The council appropriated \$25.00 to the case in Greenville, and \$50.00 to the one in Columbia. The results and causes of the prosecutions will appear in the reports of the councilor whose districts they occurred.

The council, some time ago, recommended the adoption of a medical association button, which was referred to the council for action. The secretary has a cut of the button. Those who wish one can secure it from the treasurer at \$1.25. We believe this button will prove of advantage to the wearer, and also prove an incentive to the profession to become members of the respective societies, so to become the owner of one.

The Journal is growing each year, and while it has not yet grown to that degree

of usefulness which was hoped, it is nevertheless growing in usefulness each year. To be an organ for the profession, it must be used by it, and the physicians of this state must individually read and write for it, before the full measure of its usefulness can be attained. The wealth of knowledge and attainments of our profession will be of little benefit if, like the historic one talent, it is wrapped in a napkin and hid away. The receipts and expenditures of the Journal, taken from the report of the editor and manager, which has been audited by a committee appointed by the council, shows the Journal has paid its expenses during the past year, except the salary of the editor.

The financial report is attached to this report and is as follows:

The necessity for economy in the management of the affairs of the association is so great, the council has decided to only pay one half of the expenses of our delegates to the A. M. A., and has reduced the salary of the editor to five hundred dollars per annum.

In regard to the matter of contract practice, which was referred to the council, the council has decided this to be a matter for each county society to decide for itself.

The council has ordered a return of the \$125.00 advanced the Jurnal during the year which will leave a ledger balance of \$350.70.

1909.

Jan. 1, By cash in bank as per last report, up to and including Dec. 31, 1908	\$ 118.97
Jan. 1, to Mch. 31, By advt'g., reprints, Subscriptions	513.36
Mar. 20, By check from C. P. Aimar, Treasurer	125.00
	\$ 757.33

Jan. 1, to Mar. 31, to prtg. mailing and office expenses	547.59
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Cash on hand, April 1, 1909	\$ 209.74
March 31, Bills collectible (due the Journal) see attached statement	419.96
March 31, Bills payable	150.00

Surplus on ledger, over all indebtedness	\$ 269.96
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Respectfully submitted,
(Signed) J. W. Jersey,
Editor and Manager.

Report adopted.

Financial Statement April 2, 1908, to December 31, 1908. Journal of South Carolina Medical Association:

1908.

April 2, By cash in Bank as per report to council April, 1908	\$ 332.31
April 2, to Dec. 31, By adv., reprints, subscriptions	1137.20
	\$1469.51

April 2, to Dec. 21, To prtg., mailing and office expenses 1350.54
 Cash on hand, January 1, 1909 .. \$ 118.97

I call to your attention, however, that printing (\$110.00) and other office expenses amounting to about \$40.00, or \$150.00 in all, chargeable to December issue of the Journal, were not paid until the first week in January, so that instead of a cash surplus there is really a cash deficit of about \$35.00. This is not a real deficit, however, as we had, on January 1st, bills collectible amounting to \$398.28.

I beg further to call your attention to the fact that the Journal has not had financial assistance of any sort from the association treasury since the middle of January, 1908, or a period of over one year from the date of this writing; this is excepting, of course, the editorial salary.

Respectfully submitted,
 (Signed) J. W. Jersey,
 Editor and Manager.

Feb. 6, 1909.

Report of the Committee on Report of Board of Medical Examiners.

This was read by Dr. Burdell, Dr. Burdell further stating that:

"We beg to report the committee is divided. Dr. Swygert and myself have decided to report favorably upon the recommendation of the board of medical examiners, that we require at least a certificate of a high school education, and that we do away with the junior and senior curriculum, as now run, in the examination of the board. Dr. Tripp wishes to present a minority report. This action to take effect after three years."

Dr. Tripp: Mr. President, I feel a great delicacy in presenting a minority report, but I feel if the law should go into effect now, a good many worthy young men now in college could not present before the examining board a certificate of a high school education. I am in favor of one examination to one and all, but I feel that we should give the colleges, the first two years, minor branches, requiring a four years' course; require a practical examination; and such things as zoology, a man should not be compelled to stand that examination three years after he has passed it. It looks like it would be much better to let a young man be examined the first year, rather than three years after he had studied something. So, I think we should treat the young man fairly today, who is trying to get an education.

Motion that the report of the majority be adopted. Amended by Dr. Swygert, to the effect that the young men be given three years before they have to take this examination.

Motion by Dr. Weston, that the privilege of the floor be extended to Dr. Wyman. Carried.

Dr. Wyman: Mr. President and Gentlemen: Our board's reason for having this clause inserted concerning the certificate of high school education, was because it conforms to the standard of medical education preliminary required by the American Association of Medical College. The association of American College thinks that a minimum standard for entrance to colleges should be at least a certificate of high school, and we are trying to get in line with this association of medical colleges. We just want to insist in our law that our applicants shall conform to the requirements already in existence, and every reputable college should have that rule. That is already in existence, therefore the board wishes it carried out.

Moved and seconded that Dr. E. F. Parker be accorded privileges of the floor, to give information in regard to the Medical College of Charleston, concerning preliminary educational requirements in the Medical College of South Carolina.

The President: The State Board of Medical Examiners has recommended that the lowest requirement for medical students, be a certificate of the high schools.

Dr. Parker: We have no absolute requirement of that kind. I don't remember the exact words in the catalogue, but I will say, very frankly, that a great many of the students that are received have not the high school education. I know that was the way of it two years ago, but would not like to answer positively, because I was not concerned with the registration of them; but a large number of them I think have not the high school education. A great many of them, of course, have a great deal more than that, and in the last two years a great many colleges have been admitting graduates in the arts and sciences from other colleges to the sophomore year. So far as I know, the college has never yet said anything in the catalogue which we have not earnestly endeavored to carry out. I am sure we have

never said in the catalogue that any absolute requirement was exacted of every student who entered. The catalogue states: "An education satisfactory to the faculty."

Dr. J. T. Taylor: I move that the House of Delegates have nothing to do with any medical college of the State of South Carolina. We are not a trial board, to inquire into their affairs. I make this in the form of a motion.

Dr. Parker: There is absolutely no exact requirement exacted of every student who enters the college. The faculty has always endeavored to raise the educational requirements of those who enter, and it was only a few years ago that a high school education was required of the educational institutions of the country, and it is only in the past few years that the colleges have raised this question.

Dr. Taylor: There is a motion before the house that this is out of order and extraneous to the subject.

Dr. Tripp: If this law should go into effect—that the students had to present a diploma from a high school—some of the students who had matriculated before the passage of such a rule would be in a bad fix. I desire to ask if that would not touch those who had already matriculated.

Dr. Parker: I presume the board would not apply it for three years.

Dr. Tripp withdraws his motion.

Motion by Dr. Burdell that the report of the committee be accepted. Motion carried.

Report of Committee on President's Address.

Dr. Kollock makes report on the president's address, as follows:

The committee appointed to consider certain recommendations made by the president in his address beg here to make the following report:

That a committee of three be appointed which shall be known as the J. Marion Sims, M. D., Memorial Committee, who shall suggest at the next meeting a suitable memorial for perpetuating the memory of Dr. Sims, the estimated cost and the best way of raising the money for this purpose. It shall also suggest the place (Lancaster, Columbia or Charleston) for placing said memorial.

The committee recommends the placing in the medical hall of the Medical Society of South Carolina a tablet which shall be suitably inscribed to the memory of Dr. Francis Peyre for his great literary and

scientific work upon the "Resources of Southern Fields and Forests."

The committee recommends the establishment of a prize to be awarded by the association every third year for the best essay on original and scientific work done by a member of the association and residing in South Carolina.

The committee recommends that suitably engrossed resolutions shall be prepared by the secretary of the association, signed by the president and secretary, and sent to Dr. J. W. Babcock, of Columbia, for his important discovery of a disease (pellagra) which heretofore was unknown to exist in this state.

(Signed) Chas. W. Kollock, M. D., Chm.
J. T. Taylor, M. D.
F. M. Dwight, M. D.

Report was adopted.

As to Honorary Members.

Dr. Edwards, of Darlington: I desire to get this point settled: We have elected in our county three honorary members—old gentlemen, practically retired. Those gentlemen still have to pay their dues to the state medical association, and we want to know if it is possible that those men can be recognized as honorary members of our state association. They are already honorary members of our county society. We desire to have them honorary members of the state association.

(By-Laws upon the subject read by the president, the president ruling that the honorary membership must be according to the constitution).

The president: I ruled yesterday, in the general session, after the addresses of our visitors—some one made a motion that two of the gentlemen be elected honorary members of this association, it being the custom heretofore to elect these visitors as honorary members. I made the ruling that the general session was not the proper place to hold such election, but that it be held in the House of Delegates. The constitution is not clear on that point. It says: "Members shall be elected only by ballot, and three-fourths of the votes cast shall be necessary for a choice. I desire to ask that the House of Delegates either confirm or reject that ruling.

Seconded by Dr. Mayer.

Dr. T. P. Whaley: My reason for asking this question, yesterday afternoon, was to get the thing settled. Every time a man has been proposed as an honorary member,

this objection has been raised, and it has been very disagreeable, and the visitors have felt that they have gotten half-hearted honors. Now, the general session is for scientific business. These men are being elected to membership on account of their scientific attainments, and why shouldn't every man have a say whether he shall be elected an honorary member or not, and not leave it to the House of Delegates? It seems that that could be attended to before the installation of officers.

Dr. T. Grange Simons: I am opposed to balloting in a body where these men are present. We have to discuss their character and their ability. Just for a man to get up and propose a name, I think is a dangerous practice, there might be something against them which we could not discuss before them (there has been no objection so far, that I know of) but we are establishing a dangerous precedent, I think, to discuss these matters before them. This motion was made yesterday before these men, and we didn't know what we were going to say.

The president: The question is upon the endorsement of the ruling of the chair in regard to the proper place to elect honorary members.

This motion was carried—that the proper place to elect honorary members was in the House of Delegates, and not in the general session.

Election of Officers.

Dr. E. W. Carpenter nominated for president, Dr. Jno. L. Dawson, of Charleston. Seconded.

Dr. R. Foster nominated Dr. F. H. McLeod, for president; seconded by Dr. Powe.

Dr. Swygert nominated Dr. Rees, of Charleston; seconded by Dr. Outzs.

Dr. Dawson, having received the majority of the votes, after two ballots, was elected president for the ensuing year.

The secretary was instructed to cast a unanimous ballot for Dr. F. H. McLeod, for first vice-president.

Dr. Tripp nominated Dr. Bailey, of Laurens, for second vice-president. (Ineligible on account of his being a delegate.)

Dr. Powe nominated Dr. C. M. Rees for second vice-president, and the secretary was

instructed to cast a unanimous ballot electing him, which was done.

Dr. Edwards nominated Dr. A. H. Haylen for third vice-president, and the secretary instructed to cast a unanimous ballot electing him, which was done.

Dr. Whaley nominated Dr. Walter Cheyne for secretary. Seconded.

Dr. Outzs nominated Dr. Mary Baker for secretary. Seconded.

Dr. Cheyne's nomination seconded by Dr. Burdell, Dr. Burdell stating that Dr. Cheyne had achieved a great deal for the association, as secretary. He had brought the South Carolina Association into more prominence than at any other time, and had perfected the organization of the association of State Secretaries and Editors.

Dr. McLeod seconded nomination of Dr. Cheyne.

Dr. Cheyne was elected secretary.

Dr. Weston nominated Dr. C. P. Aimar for treasurer, and moved that nominations be closed, and the secretary instructed to cast unanimous ballot for Dr. Aimar as treasurer for the ensuing year, which was done.

It was moved and seconded that Dr. Croft succeed himself as councilor for the second district. Motion carried.

The secretary stated that, according to the action taken a year ago, the state has been re-districted, and Dr. Croft no longer lives in the second district, but in the eighth.

Dr. Mayer suggested that the counties of that district be read, which was done, as follows: Orangeburg, Bamberg, Lexington and Calhoun. It was decided that the councilor had to be elected from one of the counties named.

Dr. Croft nominated Dr. W. P. Timmerman, as councilor, and nomination seconded by Dr. Earle. It was moved that the nominations be closed and the secretary instructed to cast a unanimous ballot for Dr. Timmerman, electing him councilor from the second district, which was done.

The counties composing the fourth district were read out by the secretary, as follows: Anderson, Oconee, Pickens, Spartanburg and Union—present councilor, Dr. H. R. Black.

Dr. Tripp nominated Dr. J. F. Williams, of Spartanburg, as councilor for the fourth

district. Dr. Earle seconded the nomination and moved that the secretary be instructed to cast unanimous ballot for Dr. Williams as councilor for the fourth district, which was done.

Counties of the sixth councilor district, read: Edgefield, Florence, Marlboro, Marion and Horry.

Dr. Wm. Egleston elected councilor for the sixth councilor district.

Dr. Croft nominated for the eighth councilor district, and the secretary was instructed to cast unanimous ballot electing Dr. Croft councilor of the eighth district, which was done.

Board of medical examiners:

First district, filled by Dr. W. P. Porcher. Dr. Porcher nominated by Dr. Weston to succeed himself.

Dr. Whaley nominated Dr. J. F. Maybank.

Dr. Maybank elected as member of the board from the first district.

Third district: Dr. P. Gray Ellesor, of Newberry, nominated by Dr. C. W. Barron. Seconded by Dr. Tripp.

Dr. Swygert, of Greenwood, nominated. Seconded by Dr. Outzs.

Dr. Ellesor was elected examiner from the third district.

Fifth district: Dr. R. A. Bratton nominated by Dr. Walker, and seconded. Secretary ordered to cast unanimous ballot electing Dr. Bratton examiner from the fifth district.

Seventh district: Dr. Jos. J. Watson, of Columbia, nominated by Dr. Weston, and seconded. Secretary ordered to cast unanimous ballot for Dr. Watson electing him examiner from the first district.

At large: Dr. A. E. Boozer, of Columbia, nominated by Dr. Tripp, to represent the state at large. Seconded by Dr. Weston, and secretary ordered to cast unanimous vote electing Dr. Boozer examiner for one year, to represent the state at large. This was done.

Committee on scientific work:

Present incumbents, Drs. Taylor and F. L. Potts.

Drs. Taylor and Boyd nominated by Dr. Cheyne. Seconded by Dr. Burdell. These two gentlemen unanimously elected, and the secretary ordered to declare them so elected, to serve on the scientific committee.

Committee on public policy, and legislation:

Moved by Dr. Barron, and seconded by Dr. Burdell, that the present incumbents—Drs. Guerry, Epting and Boyd—be discontinued.

Dr. Barron suggested that Drs. Guerry, Weston and Boyd be elected, as Dr. Weston was a good politician.

It was moved that nominations be closed and secretary be instructed to cast unanimous ballot for Drs. Guerry, Weston and Boyd, which was done.

Committee prevention venereal diseases:

Moved and seconded that the present committee—Drs. T. P. Whaley, C. W. Barron, Davis Furman, and president and secretary, ex-officio, be continued on that committee. Motion carried, and those named elected.

Committee on necrology:

The secretary: I wish to state that I would like to have nominated a man who will act, this time. We have neglected this branch for two years, and no report has been made of our dead. I hope a good man will be nominated, who will attend to this work.

Drs. E. A. Hines, of Seneca; J. L. Folk, and Quattlebaum, nominated.

Moved and seconded that nominations be closed and the secretary be instructed to cast the unanimous ballot of the House of Delegates, and these three gentlemen were declared elected.

Committee on the Sims Monument:

Dr. Tripp nominates Dr. Grange Simons.

Dr. Kollock nominated.

Dr. F. Julian Carroll nominated by Dr. Brailsford.

Dr. S. C. Baker nominated.

Drs. Grange Simons, C. W. Kollock and S. C. Baker elected.

Next Place of Meeting.

Dr. McLeod nominated Florence as the next place of meeting.

Moved and seconded that Dr. Hastings Wyman have privileges on the floor.

Dr. Wyman: My purpose in coming to this meeting has been to bring an invitation from the city council and the board of trade from citizens of Aiken, which I would like to have the secretary read, to have the medical society meet with us.

(These letters read by secretary).

Dr. Bailey, of Laurens, read invitation for the association to meet at Laurens next year.

Dr. Wyman presents a telegram from the mayor of Aiken, inviting the medical society to hold the next meeting there.

First ballot, no majority.

Second vote between Laurens and Aiken, as follows: Laurens, 12; Aiken, 11.

Resolved that the association meet at Laurens next year.

Single Session Restored.

Motion by Dr. Barron: "That the present method of meeting be changed to the old method of a continuous body, and not two sections, as at present—that it be changed to one section."

Seconded by several. Motion carried.

Motion by Dr. Croft: "That the thanks of the association be extended to the people of Summerville and to the Medical Society of Dorchester County, and to the Charleston County Medical Society, and also to the railroads for the courtesies extended to the State Medical Association during their visit to Summerville." Motion carried,

The Date of Next Meeting.

The third Wednesday in April was selected as the date of the next meeting.

Dr. Tripp accepted the final report of the Medical Examiners, and report as appears was unanimously adopted.

Installation.

The President: Gentlemen of the South Carolina Medical Association: Before resigning my office to my successor, I wish to express to you my heartfelt thanks for your courtesies extended to me during my term of service, and assure you that my year's service shall always be borne in mind as one of the happiest periods of my life, and one in which I have felt that I have been more honored than I can possibly be again.

I now have the honor of presenting to you an abler and more scientific man; one more able to uphold the scientific standard of excellence of South Carolina. I have the honor to present to you Dr. John L. Dawson, of Charleston. (Applause).

Dr. Dawson: Gentlemen, I thank you most sincerely for the great honor that you have conferred upon me. I had no idea of this

coming honor. I shall do all in my power to make the association the success that it has been for the past year, and to fill the place that Dr. Baker has filled so acceptably to the association, during his term of service. I shall look forward, with the utmost pleasure, to meeting you all in Laurens next year. (Applause).

The association adjourned.

Personal

Dr. and Mrs. J. M. T. Finney, of Baltimore, visited in Columbia, April 22-23.

Dr. and Mrs. D. R. Anderson, of Fairview, celebrated their golden wedding on April 12.

Dr. J. S. Waterman, of Brooklyn, was in Camden to attend the Long-Knapp wedding, April 14.

Dr. Arnold Knapp, of New York, was married in Camden, S. C., on April 14, to Miss Julia Long, of the latter city.

Dr. F. A. Coward, of Columbia, who will be in charge of the new state laboratory, has gone North for postgraduate work.

Dr. C. F. Williams, of Columbia, state health officer, will soon make a tour of the state lecturing in connection with an anti-tuberculosis exhibit.

Dr. W. S. Thayer, of Johns Hopkins, visited Dr. Babcock in Columbia May 3 and 4, for the purpose of studying the pellagra cases in the state hospital.

Dr. Rupert Blue, of Marion County, now in the U. S. Marine hospital service, has been promoted to the rank of colonel for his services in stamping out bubonic plague in San Francisco.

Dr. J. Adams Hayne, formerly of Greenville, now of the U. S. Army medical corps, has returned to his station on the Isthmus of Panama, after visiting at home and attending the meeting of the state association in Summerville.

Drs. C. H. Lavinder and C. W. Stiles, of the U. S. public health and marine hospital service, have recently visited Columbia for the study of pellagra and hookworm disease, respectively. Dr. Lavinder will establish a laboratory at the asylum to carry on this work.

Obituary

SAMUEL MARSHALL ORR, M. D.

Dr. Samuel Marshall Orr, of Anderson, died at Johns Hopkins Hospital, Baltimore, of Aneurism, April 14, 1909. He was a son of Governor James L. Orr and his wife, Mary Jane Marshall, was born at Anderson, the 5th day of June, 1855, and spent his entire life in the place of his birth.

The subject of this sketch went to school to the Rev. Edw. R. Miles, while he lived in Anderson, then to Prof. W. J. Ligon, the most noted educator at that time in the Piedmont section of South Carolina. He afterwards went to King's Mountain Military School at Yorkville, S. C., under Col. A. Coward. He finished his literary course at Furman University, Greenville, S. C.

He began the study of medicine under the late Dr. W. H. Nardin, Sr., and graduated in March, 1879, at the Jefferson Medical College, Philadelphia. He returned to Anderson and practiced medicine energetically and successfully for 25 years in co-partnership with his former preceptor, Dr. Nardin. His practice was not only large, but extensive, he being called frequently in consultation with the physicians of Abbeville, Greenwood and Walhalla, and all the other nearby towns. He was a lecturer on anatomy and physics in the Home School and in the Patrick Military Institute, was president of the Anderson County Medical Association, member and delegate of the American Medical Association, and surgeon for the C. & W. C., and Blue Ridge Railway companies. He was appointed by Gov. Richardson with Dr. Talley, Dr. Simons, Dr. Wilcox and Dr. Charles Taber as the first board of medical examiners of South Carolina. He was a great advocate of higher medical education.

During all this period of professional activity he was equally active in most of the commercial and financial matters of his city. In 1883 he formed a partnership with Mr. E. P. Sloan, under the firm name of Orr & Sloan, druggists. That firm is still in existence under the firm name of Orr, Gray & Co. He was a leading director in Anderson's first building and loan association, which did much for the building up of Anderson. He was a director in the

Alderson Cotton Mills, vice-president of the Farmers and Merchants Bank, one of the trustees of the Anderson graded schools and chairman of the medical board of the state hospital for the insane.

His great activity in the medical profession so injured his health that he was forced to give up his practice, and he was elected president and treasurer of the Anderson Water, Light and Power company when that company was organized, and held that position ever since. Upon the death of his brother, Col. Jas. L. Orr, he was elected president and treasurer of the Orr Cotton Mills.

His life was a very active one. He made a success of everything that he had ever undertaken, and the keynote to his entire success was energy and horse-sense, coupled with honesty.

In 1875 he married Miss Charlotte Alathea Allen, the granddaughter of Dr. Charles Louis Gaillard, formerly of Charleston, and daughter of Mr. Ban Allen of Abbeville county, who, with four children, survives him.

News and Miscellany

THE HOSPITAL AND THE DOCTORS.

That whatever discreditable conditions exist in the State Hospital for the Insane are primarily and chiefly due to the failure of the state to support the institution adequately is, we suppose, now generally conceded. The investigation has proceeded far enough to make clear that kindly treatment of the inmates has been the rule and careful readers of the testimony will be convinced that the superintendents and the principal members of his staff are men and women who are more than ordinarily solicitous for the comfort of their charges. That this is true does not necessarily establish that the administration and discipline have been as efficient as is desirable.

The tendency of public, charitable and penal institutions is to become isolated. They are separated from the people. The taxpayer, having contributed in their support, regards that his duty is done and forgets, and is pleased to forget, their existence. The management, superintendent

and board of directors, are deprived of the helpful encouragement of the public. Consequently, when Dr. Babcock has gone before the Legislature to ask for increased appropriations he has gone practically alone. Legislative committees invariably school themselves against the pleas of scores of officials, asking "for more." That is not an improper attitude, generally, for the Legislator, it is his business to be an economist; the burden of proving an institution's wants should be on the management; but it is a very heavy burden sometimes on men who have no natural aptitude for begging. Facility in extracting legislative appropriations is a talent, but not one of the first order, and it is not frequently found in men whose heads and hearts are set upon larger things.

The greatest blessing that could come to South Carolina's insane would be the placing of the hospital maintained for them in a closer relationship with the people, and the direct way of accomplishing this would be through the physicians and surgeons of the State. In a word, the State Hospital for the Insane should be the especial care of the South Carolina Medical Association. The Legislature should amend the law so that at least one-third if not one-half the number of the board of directors would be elected by the Association or by the Legislature upon its recommendation. Moreover, it would be wise if the Legislature would request and authorize the Association to elect a board of visitors from its membership, responsible only to the Association and serving without compensation from the state, without administrative authority, whose duty it would be to visit the institution occasionally for the purpose of informing themselves and the association of the progress of the medical treatment of the insane in South Carolina. This board would not in any sense interfere with the board of directors, it would have no authority to exercise, but it would tend to bring the largest hospital in South Carolina to the attention of the South Carolina doctors of medicine. In our opinion, the adoption of this policy would be the beginning of the conversion of the Hospital from its present status as a place for the detention and custody of the insane to one for their treatment and cure as well. That conversion is

highly necessary; it is discredit able to the state that it is content to stand by when other states are pressing forward in the effort to cure its mentally diseased, and endeavor to eradicate or ameliorate diseases of this character should and would enlist the aid of the South Carolina physicians if their aid should be solicited.

The medical profession is rapidly advancing in South Carolina. The state and district associations of physicians and surgeons are gaining in the effectiveness of their organizations. The doctors, as a body, are doing more than ever before in behalf of public sanitation and for the prevention of diseases; the number of accomplished members of the profession is multiplying, especially in the growing cities and towns, and the profession as a whole is actuated by the highest public spirit. Moreover, the people trust the physicians. No other class of men have such a hold on popular confidence as the doctors have, and in South Carolina is deserved.

Were the doctors through their associations interested in the Hospital for the Insane as they should be, Dr. Babcock would experience no difficulty in obtaining the needed support for the institution from the state.—*News and Courier*.

THE STATE LABORATORY.

The state board of health has elected Dr. F. A. Coward director of the laboratory of the state board of health. This laboratory will be established in Columbia. Among other things he will be in charge of the examination of supposed cases of rabies, tuberculosis, etc.

Dr. Coward will spend some time in the North fitting himself for the work. He has done remarkable work for the city of Columbia as inspector of meat and milk.

The laboratory will be located in the science hall at the university. As soon as the university management learned that the laboratory would be located here, the plans for the new building were changed so as to include the laboratory. The university received enthusiastically the idea of co-operating with the state board of health.

The members of the board present at the last meeting were: Dr. Robert Wilson, Jr., of Charleston, Dr. H. T. Hall of Aiken, Dr. C. C. Gambrill of Anderson, Dr. W. J.

Burdell of Lugoff, Dr. W. M. Lester of Columbia, and Dr. W. W. Dodson, of Laurens. The secretary and state health officer is Dr. C. F. Williams, of Columbia.

The laboratory will not be used in a pathological way, to cure diseases, but merely to make examinations, to find where tuberculosis and like ills may be treated.

Dr. Coward is a son of Col. Asbury Coward, beloved of many South Carolinians. He is warmly admired in Columbia and gave the city efficient and valuable service as meat inspector. In this new undertaking it is believed that he will make a very enviable record.—Columbia State.

Book Reviews

KELLY ON APPENDICITIS.

Appendicitis and Other Diseases of the Vermiform Appendix. By Howard A. Kelly, M. D., with 215 original illustrations, some in colors and three Lithographic plates. Pp. 502. Cloth, \$6.00, net. Philadelphia and London. J. B. Lippincott Company.

The work of Dr. Kelly is too well-known to need commendation at our hands. His wonderful ability, poise, and energy have enabled him to make yet another classical presentation to the surgical world. The present volume is in a way, perhaps, a second edition of the same author's "The Vermiform Appendix and its Diseases." Dr. Kelly tells us in his short preface to this issue that soon after the appearance of the former volume it became evident that a compact resume dwelling particularly upon the practical aspect of the subject would meet better the daily needs of the great army of general surgeons throughout the country. With this end in view he prepared this new edition. There is no lack of detailed treatment of the facts relating to the many diseased forms of the appendix, and the work is one which must appeal to the specialist as well as to the general surgeon. It is beautifully illustrated, partly in colors, and is at once comprehensible as well as comprehensive. The mechanical work on the volume is of the highest order. No physician or surgeon in active practice can afford to be without this book.

CONSERVATIVE GYNECOLOGY AND ELECTRO-THERAPEUTICS.

A practical Treatise on the Diseases of Women and Their Treatment by Electricity by G. Betton Massey, M. D., attending surgeon to the American Oncologic Hospital, Philadelphia; Fellow and Ex-President of the American Electro-Therapeutic Association, etc. Sixth Edition, thoroughly revised. Royal Octavo. 462 Pages. Illustrated with Twelve (12) Original, Full-Page, Chromolithographic Plates and Fifteen (15) Full-Page Half-Tone Plates of Photographs taken from Nature, and numerous Engravings in the Text. Bound in Extra Cloth. Price \$4.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Dr. Massey is an enthusiast in the use of electro-therapeutics, and that he has many sympathizers and co-workers is evident from the fact that this is the sixth edition of his work. Dr. Massey is eminently correct in remarking the tendency on the part of operative gynecologists to observe much more conservative measures than formerly in the treatment of non-malignant pelvic diseases, and his work will help to strengthen the cause of conservatism. In the present edition a new chapter has been added on electro-chemical surgery in the removal of new growths, the treatment of tubercular adenitis, and the use of high-frequency currents in gynecology. Many of the illustrations are in colors, and the whole will prove a volume of value to any practitioner who would equip himself for the handling of electro-therapeutic measures.

CONSTIPATION AND INTESTINAL OBSTRUCTION.

By Samuel G. Gant, M. D., LL. D., Professor of Diseases of the Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Octavo of 559 pages, with 250 original illustrations. Philadelphia and London: W. B. Saunders Company, 1909. Cloth \$6.00 net; Half Morocco, \$7.50 net.

The object of this volume is to present to the profession a concise and practical treatise on the etiology, pathology, symptoms, diagnosis and treatment of intestinal obstruction. The *raison d'être* of the volume being, at least in great measure, to emphasize the drugless management of these diseases. The author feels sure from his experience that the many benefits derived from psychotherapy, diet and physical measures have not received the attention they deserve at the hands of the medical pro-

fession, and he gives a very clear and valuable insight into the practical application of these measures of treatment. The author does not discountenance the use of drugs entirely, and believes that there are many cases which require such a form of treatment. The work is one which will well repay the study of the active practitioner. It is well illustrated and fully up to the Saunders' standard of mechanical work.

BOOKS RECEIVED.

Transactions Medical Society State of Alabama. 1907.

Transactions Medical Society State of Alabama. 1908.

Conservative Gynecology and Electro-Therapeutics. Massey. F. A. Davis Co.

Reports of Committees. President's Homes Commission.

Industrial and Personal Hygiene. Kober. President's Homes Commission.

On building of Model Houses. Sternberg. President's Homes Commission.

On Social Betterment. Kober. President's Homes Commission.

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Report of Citizen's Health Committee.

Mortality Statistics, 1907. Bureau of Census, U. S. Dept. of Commerce and Labor.

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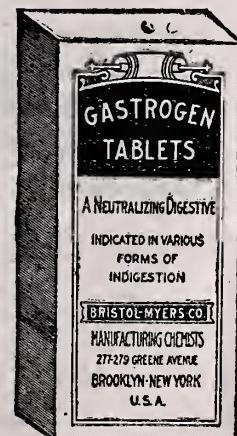
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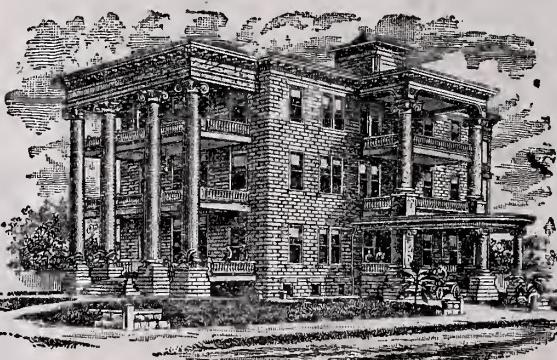
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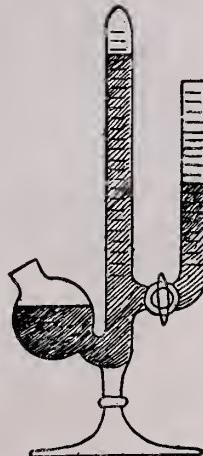
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District No. 3: Saluda, Newberry, Greenwood, Laurens and Abbeville. Councilor, Dr. O. B. Mayer, Newberry (Chairman of Board), 1911.

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District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor, Dr. W. B. Cox, Chester, 1910.

District No. 6: Chesterfield, Darlington, Florence, Marlboro, Marion and Horry. Councilor, Dr. William Egleston, Hartsville, 1911.

District No. 7: Richland, Sumter, Clarendon, Williamsburg, Georgetown and Lee. Councilor, Dr. F. M. Dwight, Wedgefield, 1910.

District No. 8: Barnwell, Aiken, Edgefield and Hampton. Councilor, Dr. T. G. Croft, Aiken, 1912.

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TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay.

County Society	President.	Secretary	Time of Meeting.
Abbeville	J. B. Britt	C. C. Gambrell, Abbeville	
Anderson	J. L. Gray	J. R. Young, Anderson	Semi-Mo., 1st and 3rd Mon
Aiken	C. A. Teague	T. A. Quattlebaum, Gr't'ville	Monthly, 1st Monday.
Bamberg		J. J. Cleckley, Bamberg	
Barnwell	A. B. Patterson	L. F. Bonner, Blackville	
Beaufort	H. M. Stuart	M. B. Cope, Port Royal	
Charleston	John L. Dawson	A. J. Jersey, Charleston	Semi-Mo., 1st and 15th.
Cherokee		B. L. Anken, Gaffney	
Chester	J. G. Johnston	W. B. Cox, Chester	Monthly, 1st Monday.
Clarendon	W. M. Brockinton	C. B. Geiger, Manning	Quarterly.
Chesterfield	T. E. Lucas	J. W. McCanless, Chesterfield	
Colleton	J. T. Taylor	T. G. Kershaw, Walterboro	Monthly.
Darlington	J. F. Watson	J. C. Lawson, Darlington	
Dorchester	J. B. Johnston	E. W. Simons, Summerville	Monthly, 1st Monday
Edgefield		J. G. Edwards, Edgefield	
Fairfield	R. B. Hanahan	Samuel Lindsay, Winnsboro	Quarterly.
Florence	F. H. McLeod	J. H. Peele, Cartersville	
Georgetown	Olin Sawyer	W. M. Gaillard, Georgetown	Monthly, 1st Friday.
Greenville	L. L. Richardson	W. M. Burnett, Greenville	Monthly, 1st Monday.
Greenwood	R. B. Epting	J. B. Hughey, Greenwood	Monthly, 1st.
Hampton	T. B. Whatley	C. A. Rush, Hampton	Monthly, 3rd Wednesday.
Horry	A. D. Lewis	J. S. Dusenbury, Conway	Monthly, 2nd Monday.
Kershaw	S. C. Zemp	W. J. Burdell, Lugoff	
Laurens	W. D. Ferguson	J. H. Teague, Laurens	Monthly, 4th Monday.
Lee	B. L. Harris	R. O. McCutcheon, Bishopville	Monthly, 1st Tuesday.
Lexington	W. L. Kneece	J. J. Wingard, Lexington	Quarterly.
Marion	B. M. Badger		
Marlboro	W. M. Reedy	Chas. R. May, Bennettsville	
Newberry	J. M. Kibler	J. J. Dominick, Prosperity	
Oconee	B. F. Sloan	H. E. Rosser, Westminster	
Orangeburg	W. L. Pou	D. D. Salley, Orangeburg	Monthly, 3rd Tuesday.
Pickens	J. L. Bolt	R. J. Gilliland, Easley	Monthly, 1st Wednesday.
Richland	L. A. Griffith	Mary R. Baker, Columbia	Every 2nd Monday night.
Saluda	D. B. Frontis	J. D. Waters, Coleman	
Spartanburg	S. T. D. Lancaster	L. Rosa H. Gantt, Sp'tnb'g	Monthly, last Friday.
Sumter	Archie China	E. R. Wilson, Sumter	Monthly, 1st Thursday.
Union	J. T. Jeter	R. R. Berry, Union	Weekly
Williamsburg	W. H. Woods	J. B. DuRant, Lake City	Monthly.
York	M. J. Walker	John I. Barron, Yorkville	Bi-Monthly.



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The Journal

South Carolina



Medical Association

Volume V.

Greenville, S. C., June, 1909

Number 6

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Discussed by Drs. C. M. Rees, T. P. Whaley and A. E. Baker.

Intra-Peritoneal Infusion of Normal Salt Infusion—A. B. Knowlton, M. D., Columbia, S. C. Discussed by Dr. Bransford Lewis.

Things the Doctor Should Know About Milk—F. A. Coward, M. D., Columbia, S. C.

Diuresis Dependent on Circulatory Chan-

ges

—John Forrest, M. D., Charleston, S. C.

Some Modifications of the Clinical Course of Acute Labor Pneumonia—Robert Wilson, Jr., M. D., Charleston, S. C.

MINUTES OF THE SOCIETY OF MEDICAL SECRETARIES—Meeting at Summerville, S. C., April 22, 1909.

SECRETARIES DEPARTMENT.

COUNTY SOCIETY REPORTS:

Aiken, Charleston, Spartanburg Orangeburg Abbeville, Florence, Dorchester, Oconee.

EDITORIAL

CORRESPONDENCE.

PERSONAL.

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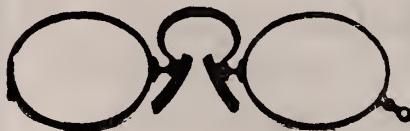
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Original Articles.

URO-GENITAL TUBERCULOSIS.

With Especial Consideration of Tuberculosis
Of The Bladder.

By BRANSFORD LEWIS, M. D., St. Louis.
The Address on Surgery, delivered before
the South Carolina Medical Association,
April 21st, 1909, Summerville, S. C.

In acknowledging my deep appreciation of the honor you have conferred in inviting me to be your guest and essayist this evening, I am expressing the thought that is first and foremost in my mind.

I have long looked forward to the time when I could have the opportunity of visiting this mother state, of which we hear so much in our part of the country—and always in words of deep affection, by your numerous sons who have been lost, strayed or stolen in that direction.

Though never before a visitor in South Carolina, my own Southern blood permitted me not the slightest misgiving as to whether I should feel "at home" on arrival here; I only looked forward to the pleasure that I felt was in store for me: Of coming face to face with the scenes and birthplace of a large share of American history, of events that thrill the loyal heart of every American citizen. I wanted really to see Fort Moultrie, where Sergeant Jasper replaced the flag and become personally acquainted with your metropolis, Charleston, that has occupied the limelight in so many eventful incidents, from cannon balls to earthquakes, and anon, from pills to politics.

But, coming down to the subject that is to engage our attention just now, an easier and clearer conception of uro-genital tuberculosis is obtained when the general scheme of plan of attack made on these organs by this infection is understood.

It is claimed by certain students of this

subject that tuberculosis is never primary in the urinary or sexual organs, that although its first clinical manifestation may be focused here, the development is really secondary to some unrecognized involvement elsewhere, a latent pulmonary lesion, or even a lymph gland.

However, this may be, there are certain general plans followed in the development of the infection when it does involve the genito-urinary system, that now seem fairly well understood and attested.

Transmitted in any one of five different ways the tubercle bacilli reach the genito-urinary organs (1) Through the blood vessels; (2) through the lymph channels, (3) by means of the physiological secretions, the urine, semen; (4) by continuity of tissue; (5) by contiguity.

Being thus transmitted, it is found that certain organs of the genito-urinary system habitually receive the brunt of the attack first while others invariably stand secondary in this respect. In the vast majority of all cases in which the urogenital organs are implicated, one or the other kidney is the location of the first attack (never both at the same time, in a very small proportion of such cases one or the other epididymis is the point of initial attack).

From these respective foci extension of the infection spreads in the direction of the physiological secretions (urine and semen); that is, from the kidney downward, along the ureter to the bladder; and from the epididymis upward, along the vas deferens, the seminal vesicle, ejaculatory duct, prostate to the urethra and vesical neck. Thus the bladder stands in the line of attack from either direction, and therefore stands a most excellent chance of being ultimately concerned in the disease process, no matter from whence it comes.

The determination of these facts (chiefly contributed by Motz and Halle, *Annales des maladies des organes genito-urinaries*, 1908, XXIV, p. 161) has finally settled the old time discussion on "ascending and descending infection," as to whether the infection ascended from bladder to kidney, or descended from kidney to bladder. In the presence of infection of both kidney and bladder, it is assured that the kidney is the organ primarily involved, and the extension has been to the bladder, either by the ureter or its lymph ducts. If the

infection has come up from the genital gland, the bladder stands in the same secondary relationship, also.

In other words, vesical tuberculosis is an affection invariably secondary to tuberculosis of some other uro-genital organ; and must be so considered in respect to diagnosis prognosis, therapy and management.

Probably we would have difficulty in getting a patient affected with tuberculosis of the bladder to acknowledge that the bladder was "secondary" in any respect. It is usually the most absorbing and vivid exemplification of misery incarnate that he can imagine.

LOCATION OF EARLY EVIDENCES OF VESICAL TUBERCULOSIS.

The early expression and location of the disease are much influenced by the mode of production of the infection. If the implantation is as ascending one, from testes and vesicles or prostate, the early manifestations will be on the trigone or the vesical neck; but if the germs have descended from a kidney by way of a ureter, the ureter itself or its immediate neighborhood is the point that first capitulates and becomes reddened, swelled, inflamed and finally ulcerated.

MARITAL TUBERCULOSIS.

It has been claimed that sexual intercourse presents a mode of direct transference of tubercle bacilli and infection that shows itself with sufficient frequency to be taken into account. I have myself observed instances of this sort, one in particular in which tuberculosis of the bladder occurred in a wife whose husband, a physician, was the subject of advanced general tuberculosis and the coincidence was very striking; but investigation into the history of the wife showed that her own family history was not above suspicion. This question has been the subject of careful scrutiny and analysis by Mr. E. G. Pope, of the Adirondack Sanitarium, who concluded that there are too many sources of error as yet to fix the responsibility of direct contagion on matrimonial association. He believes, further, that assortive mating (the tendency among subjects of certain diseases to select in marriage those with like marked tendencies as themselves) accounts for two-thirds and infective action for not more than one-third of the whole correlation observed in these cases (quoted in *Journal of Am. Med. Assn.*, Sept.

5, 1908.) If this mode of infection were a frequent factor the woman would be the chief sufferer, from the deposition and retention of tubercle bacilli in the recesses and folds of the vagina; but records indicate that women are affected with vesical tuberculosis about one-third less than men.

MODE OF DEVELOPMENT. The stages of development of tuberculosis cystitis may be divided as follows (Motz and Halle):

1. The stage of invasion and formation of tubercles.
2. The stage of inflammation and superficial ulceration.
3. The stage of deeper infiltration.
4. Stage of widespread destruction (Walker.)

In the earliest period (invasion) there are white or grey tubercles and injected areas, without the presence, necessarily, of ulceration. Some have sought to call this "tuberculosis of the bladder" as differentiated from tuberculosis cystitis; but the differentiation is artificial; they are stages of the same process.

Ulceration shows itself after the apex of the tubercle becomes necrotic and breaks down. These independent ulcers tend to coalesce and make the larger ulcers that are typical of the process.

Such ulcers are sharp-edged, sometimes slightly undermined; with their surface irregular and uneven, and liable to be covered with greyish pseudo-membrane, tinged with blood or small clots, at times. The ulcer is surrounded by membrane whose natural luster is dimmed, which looks reddened and velvety, and whose blood vessels are lost in the intense injection prevailing.

CLINICAL EVIDENCES—The clinical evidences may be described as those giving rise to (a) suspicion; (b) confirmation; (c) conviction. Suspicion of vesical tuberculosis should be aroused by persistent and apparently inexplicable frequency of urination, either by night or day or both, together with the appearance, over long periods of time, of blood-cells, in microscopic quantities in the urine. In the later stages pain and harassing suffering, day and night, with interruptions or loss of sleep and lowering of nerve stamina, mark the more serious phases of the disease. Persistent or recurrent bleeding from the ulcerated areas

is apt to take place from the ulcerated surfaces, adding to the depression both mentally and physically. But of much more importance, from the diagnostic standpoint, than this is the persistent appearance in the urine of red cells in microscopic quantities in the early periods of the infection. It is important because it is early, furnishing the medical attendant the grounds for suspicion that, if recognized and followed up, enables him to recognize the disease at the earliest possible moment, which is, of course, all-important. But I have found in numerous instances that this feature was not recognized or even suspected because examinations of the urine were not sufficiently careful or searching. Such urines are often limpid clear, and from the microscopical standpoint as far above suspicion as Caesar's wife could have been; yet, when searched after prompt and thorough sedimentation are found to contain large numbers of red cells, present in every specimen voided. Frank hematuria may become one of the outspoken danger signals later, when inflammation or ulceration are established.

Pain is either spontaneous or excited by the act of urination. In the latter case it is most intense at the end of the act aroused by the squeezing of the inflamed and ulcerated areas by the vesical sphincters. Pain of this character is almost a constant attendant, at one period or another, on the tuberculosis bladder; and often becomes so severe as to precipitate the patient into cocaine or morphine addiction. But while this is true, another, allied, symptom is even more characteristic of the disease; that in itself alone often elicits the suspicion of tuberculosis; That is, excessive tenderness and hypersensitiveness to manipulation. Appreciation of this fact should lead to the free use of local anesthesia for making any local investigation.

In health the desire to urinate is aroused by irritation of the mucous membrane of the prostatic urethra or neck of the bladder. Any irritation applied at this point will arouse desire to urinate. When that irritant is urine from the full or over-filled bladder, the result is physiological desire to urinate, that passes off when the bladder is evacuated, when the irritant is tuberculous inflammation or ulceration, there is good reason for the persistent and intense desire to urinate that so frequently accompanies this condition, even

in the presence of a comparatively empty bladder. This fact is contributed to by reason of the frequency with which the neck of the bladder is the part especially involved. Sometimes the frequency is due to reflected irritation onto the neck, rather than direct inflammation there, as for instance from renal tuberculosis, which occasionally causes frequency before the involvement of the bladder.

Among the characteristic signs of vesical tuberculosis is a marked diminution in the capacity of the bladder (contracted bladder). From three to four ounces is a fair average capacity for such bladders; due to infiltration and thickening and lessened elasticity of the walls.

A peculiarity noticeable is that, in face of this condition and the prolonged inflammation prevailing with it, the urine is liable to be acid in reaction. The introduction of the proteus group of bacteria sets up ammoniacal fermentation that alters this, however, establishing alkalinity and adding to the subjective complaints and activity of inflammatory processes.

MIXED INFECTIONS. In addition to the tubercle bacilli found in tuberculous cystitis, other organisms are sometimes present and take a active part in the pathological processes. Some of them have something to do with the inauguration of the tuberculous infection, while others are followers of the tuberculous infection, adding their quota to the miserable conditions prevailing. Many cases of urinary tuberculosis have been observed as followers of urethral gonorrhea; while streptococci, staphylococci, colon bacilli and other organisms have been found as companions of tubercle bacilli. It is considered probable that pyogenic organisms lower the resistance of the mucosa and produce minute breaks in its surface, allowing the tubercle bacilli to enter the submucosa. On the other hand, it is thought that cystitis caused by members of the proteus group does not offer so fertile a field for the invasion of the tubercle bacilli as that produced by streptococci and gonococci (Walker).

DIAGNOSIS. While the characteristic symptoms and signs given may be sufficient to give rise to suspicion and even confirmation of the suspicion of tuberculous cystitis,

in other words, a presumptive diagnosis of that affection, the crucial factor for determining the diagnosis, as with tuberculosis of other parts of the body, is the demonstration of the tubercle bacillus in connection with the convincing evidences of inflammation of the bladder. The appearance of tubercle bacilli in the urine does not by any means necessarily indicate vesical tuberculosis, as it has repeatedly been proved (Israel, Jani and Nakarai, Thilicwicz) that tubercle bacilli may float in the urine of persons whose urinary tract is innocent of any pathological lesion, even as demonstrated post mortem.

The finding or identification of the tubercle bacilli in the urine is not always easy or possible, and is largely dependent on accompanying conditions, the age and extent of the lesions, the mode of search carried out, etc. The bacilli may be sparse in number and on that account escape detection by the ordinary methods.' Bryon called attention to a useful procedure in this connection, namely, the draining off by sterile catheter of the small amount of urine left over after voluntary urination, as offering a better probability of gathering the bacilli that have settled at the bottom of he badder.

DIFFERENTIATION BETWEEN SMEGMA AND TUBERCLE BACILLI.—Much thought and research have been spent in the endeavor to find a method of definite differentiation by the microscope between the smegma and the tubercle bacillus. Many different staining methods have been evolved. I have seen some serious errors result from relying on such methods. I believe it is much safer and better to pay no attention to them whatever, but to make a differentiation by excluding the introduction of smegma bacilli in obtaining the specimen. It should always, where possible, be obtained by sterile catheterization, in either male or female after thorough cleansing of the external genitals. In the female one must be especially careful even then, as the urethra is short enough to permit of the introduction of smegma bacilli on the catheter as passed into the bladder.

Sedimentation should be affected promptly after the passage of the specimen, and should be thorough. Trevithick recommends that the supernatant fluid be poured off from the first sediment obtained, and the

tube be re-filled with water and re-sedimented. This is supposed to favor the adhering of the bacilli to the glass slide or cover-slip. A number of staining methods are of value, the carbol-fuchsin retaining the esteem in which it has long been held.

Failure to find bacilli in the specimen, even after several essays, does not prove their absence, and merely stands as negative evidence; it must be supplemented with the more accurate mode of guinea-pig inoculation of the urinary sediment. This is reliable and extremely valuable—much more so in the writer's opinion, than the hypodermic tuberculin test. But it requires from two to three weeks' time for maturing.

CYSTOSCOPY—The other necessary factor for fixing the diagnosis of tuberculosis cystitis is the picture presented by the cystoscope.

The writer desires to express himself as decidedly opposed to the rather broadly disseminated view that urinary "tuberculosis means interdiction of the use of instruments, either for diagnosis or for treatment. While due conservatism should be exercised in this regard, the idea that it is a forbidden field should be abandoned. That idea is no more applicable here than in other conditions requiring the ministrations of surgery and medicine. It has been observed in a number of cases of severe urinary tuberculosis that the repeated use of the cystoscope, together with ureter catheterization and other forms of instrumentation, have not retarded or interfered with the progressive improvement or even recovery. In some instances, indeed, such measures themselves were followed by distinct improvement sustained in repeating them. I have never yet observed any complications or serious consequences from such manipulations, though they are restricted always to the necessities of the case and not used in a meddlesome way.

The writer has been much gratified to observe participation in this view by Willy Myer (New York Medical Journal, April 27, 1907) who says, "Cystoscopy of the urinary tract has always been a subject of great interest to me and I look upon it as a valuable diagnostic aid. I was somewhat surprised, therefore, to note the opinion expressed by a few colleagues that this examination as well as catheterization of the ureters is contraindicated in patients afflicted with this

trouble (tuberculosis). In all my cystoscopic experience extending over a period of just twenty years, I have never seen cystoscopy cause direct detriment to these patients, and I feel it never should so long as the instruments are gently and judiciously manipulated. I would therefore state right here that I consider cystoscopy not only permissible but in most of these cases absolutely necessary in order to enable us to establish a definite diagnosis."

While characteristic lesions such as have previously been mentioned, are shown by the cystoscope in tuberculous inflammation and more especially ulceration of the bladder, it can not be said that the lesions are always typical, that they adhere to hard and fast lines of development. On this subject Casper (Bonney's translation p. 224) says: '(In general, tuberculosis of the bladder does not present a specific picture: Besides diffuse swelling and redness there are at times deeply congested localized areas clearly separated from apparently healthy tissue, while again ulcerations having nothing distinctive about them are seen. Tubercles are very seldom found.'

Fenwick (Clinical Cystoscopy, page 172) says: "The primary (early) deposit is detected on the posterior wall in two forms, either diffuse, as a dull red patch or patches, or localized, as a single ulcer to the inner side of the ureteric orifice. The dull red patches betoken extravasation and exudation I have sometimes met with cases in which a solitary ulcer was seen to the inner side of the orifice and I could not distinguish its appearance from the solitary simple ulcer."

URETERAL ORIFICES—Besides the oval or rounded ulcers with roughened, raw and bleeding surface; surrounded by a zone of congestion, of velvety appearance, lacking the natural luster; with other areas of congestion either localized or diffuse—besides these characteristic appearances of the bladder mucosa itself, the uretal orifices themselves ordinarily but not invariably present characteristic features in connection with descending tuberculosis. These have been especially well studied by Fenwick, who says (*Ibid.* p. 174): "One of the ureteric orifices is attacked before the other; both are never attacked equally. The orifice of that ureter on which the stress of disease first falls changes in contour, its lips thicken, and it

becomes caked and patulous. The same changes will be found in the corresponding renal pelvis, with implication of the lower part of the kidney." The same author says that where the vesical implication is a descending one from a tuberculous kidney that retracts under the ribs, the ureter displaced, elevating the trigonal angle of that side and perhaps presenting a funnelled appearance there—furnishing a diagnostic sign of material value. Instead of being an inch and a half from its fellow and the same distance from the urethral outlet, it is found to be as much as two inches from either opening, and is drawn both outwards and upwards.

While the positive evidence thus presented by the appearance of the ureteral orifice should be given its full meed of credit as an indicator of the condition of the kidney above it, many authors go still further and accept its negative evidence with as great confidence. They declare that if the ureteral orifice is normal in appearance there is no necessity of looking further for evidence of tuberculosis of the corresponding kidney; they give it a clean bill of health on that ground alone.

Others, again, accept with equal complacency the cystoscopic appearance of the urine as it is being admitted in jets from the respective ureteral openings, saying that if either jet is cloudy or bloody, it means that the corresponding kidney is the one at fault. The acceptance of such flimsy and untenable evidence can only result in discrediting and defaming a procedure of the highest scientific value. Kidneys saturated with tuberculous infection have been removed from patients whose ureteral orifice showed no indication whatever of the renal trouble; and if it be true that urine microscopically clear and to casual inspection healthy, can contain pus cells, red blood cells, and tubercle bacilli, the cystoscopist must be expert, indeed to detect these in the jets of urine issuing from the ureters.

The reliable, safe and secure mode of arriving at the determination of implication or health of the respective kidneys is that by ureteral catheterization and minute investigation of the urines drained thereby. There are no well grounded objections to the procedure and the information it furnishes is not illusory or misleading. Much time and printer's ink have been spent in the endeavor to prove that ureteral catheterization is

dangerous because of its liability to convey infection into a healthy ureter. If this objection were tenable it would have had plenty of evidence ere this to justify it; but such has not been the case, and of the many thousands of uretal catheterizations, none have been reported as leaving such a heritage.

Segregation does not compare with it in any respect. It is both unreliable and inefficient, leaving no material reason for its use.

LYMPHOID TUBERCLE.—A peculiar formation occasionally seen in the bladder either in the presence or absence of tuberculous infection, is a deposit of lymph in the form of lymphoid tubercle. These little tubercles, yellow and prominent, dot the surface of the vesical membrane in a manner that is startlingly like the tubercles from Koch's organism, but with which they may have no relation. Alexander describes the condition under the term, nodular cystitis. Kneise in his *Mandatlas der Cystoskopie*, 1908, Table V, No. 22, gives a beautiful illustration of the condition; which shows very well, also, the chief differentiating features between these and real tubercles: There is absence of the zone of inflammation and extravasation that habitually accompanies true tubercle. In a case observed post mortem by Dr. Mark and Dr. Hall of Kansas City, the pseudic-tubercles were scattered over the entire bladder mucosa; but this is exceptional, as they ordinarily affect only the trigonal neighborhood.

It is evident, therefore, in connection with cystoscopy, that while seeing is believing, and the cystoscopic picture is essential and all-important, it must be correctly seen, appreciated and interpreted; and conclusions from it should be made after due consideration of the clinical history and general features of the case.

The "therapeutic test" is a means which, applied either inadvertently or intentionally, gives a fairly good indication of the tuberculous or non-tuberculous nature of a vesical inflammation. Nitrate of silver solution, nearly always gratefully received by the infected bladder, arouses prompt additional irritation if the cystitis is of tuberculous origin.

The tuberculin test of inoculation should have a place here as elsewhere in hearing

testimony on the presence or absence of tuberculous infection.

The final definite diagnosis must after all occasionally be made without the demonstration of the tubercle bacillus present being taken as sufficient to justify a conclusion. One sometimes feels that he is in the presence of tuberculosis, without being able to elicit the distinctive, individual evidences desired. Then, too, the condition of other organs of the body, whether tuberculous or not, may have a serviceable bearing on the question.

-TREATMENT.—General Considerations.

The treatment of tuberculous cystitis may be divided into palliative and curative: by means of hygienic, systemic, local and operative measures.

Since this affection is a secondary one—in most cases, the kidney—the curative plan usually involves an operative attack with removal of the original focus.

THE MODES OF TREATMENT may be divided as follows:

1. General, systemic, and hygienic measures.
2. Tuberculin treatments.
3. Operative attack on the original foci of the infection.
4. Operative attack on the bladder (a) extirpation of the bladder and transplantation of the ureters, (b) curetting or cauterization, or both; (c) local application of bichloride or carbolic solution, (d) drainage of the bladder by fistula.
5. Local application to the bladder: Boric and irrigations, bichloride installations, injection of iodoform oil or other soothing, antiseptic medicaments.
6. Cystoscopy and ureteral catheterization and application of medicaments through them into the ureters and renal pelvis.

GENERAL HYGIENIC MEASURES—The various systemic and hygienic influences suitable for tuberculosis in general are indicated, and it would be supererogation to rehearse them here. While in entire harmony with the belief that these are of prime importance and must be supplied in each instance, I do not participate in the belief that they must be attained at all hazards; in other words, I am of opinion that so much can often be accomplished by local

and operative measures that these should not be sacrificed merely for the purpose of going away for "good air" and ideal hygienic influences. This is in opposition to the doctrines of certain writers, I know, but experience has brought me to that conclusion.

Creasote and guaiacol in full dosage are often beneficial: likewise various systematics that are non-alcoholic. The formaldehyde group of medicaments (urotropin, cestogen) is contraindicated: they afford no service and are often highly irritating.

TUBERCULIN TREATMENT—Tuberculin treatment occupies the same position here that it does with reference to the tuberculosis of other parts of the body and should be prescribed under the same regulations. The dosage should be minute and short of producing the marked and injurious reactions prevalent in the earlier use of this remedy.

OPERATIVE TREATMENT.—Operative attacks embrace: (a) nephrotomy and partial resection of involved kidney tissue; (b) nephrectomy; (c) ureterectomy; (d) castration or epidymectomy; (e) vasectomy; prostatectomy; (f) removal of seminal vesicles.

Partial resection of a tuberculous kidney has proven a false hope and has been abandoned. It does not secure the removal of all of the original focus.

Experience in manifold instances has proved the justification of removing the kidney, if it be the originating factor, with, possibly, the corresponding ureter if seriously involved. This is also true of the removal of the worse of two tuberculous kidneys, in certain instances, relieving the sufferer of a suppurating and infected organ that is doing no good but is undermining the health and inciting infection elsewhere. It is well established that bladders the subject of tuberculous inflammation and ulceration are reclaimed from their unhealthy condition by these measures and undergo definite reparative changes, the ulcers heal and inflammation ceases.

Certain authors have laid much stress on the removal of the entire ureter, in addition to the kidney where it is affected, insisting that if any of it be left behind it will necessarily prove a source of renewed infection later. As already mentioned, the tubercu-

ious bladder is able to clear up and regain its health after removal of the primary focus, a kidney; why not the ureter, as well. While it can not be denied that it is theoretically better to be rid of a tuberculous ureter, its removal in very serious cases cannot fail to add to the duration and perhaps difficulty of the operation, possibly to the extent of compromising the chances of the patient's going through it successfully. In view of the doubtful advantage gained, is it advisable to run the risk in all instances? I confess my own leaning to the negative side of the question. Two years ago, acting on this reasoning, I removed the left kidney of a young woman who was so debilitated in health and strength that the several medical attendants were united in the belief that she could not withstand the combined operation of nephro-ureterectomy. The ureter was left behind, the patient, though in a precarious condition for several days, recovered. Her bladder has since been relieved of both inflammation and ulceration, the ureter of that side has become obliterated, discharges nothing and is not even patent to a catheter. The patient has gained about thirty pounds and her general health appears restored. For a time after the operation there was tenderness along the line of the affected ureter, but that has passed away, giving no further trouble.

The justification for operating on or removing the testes epididymes, vasa deferentia, vesicles or prostate, when they are original foci, seems to be not yet established for all cases, and there is no such uniform sentiment here as there is with respect to the removal of the kidney. So much can be accomplished by general and hygienic measures that it would seem desirable to first adopt these in such cases, and defer any mode of operating until its necessity is demonstrated by persistence or rapidity of development of and extension to other organs. Factors present in individual cases will have much to do with determination of the question.

Operative attacks on the bladder, except for palliative purposes (for necessary artificial drainage, etc.) are on the whole, illogical and have little to recommend them. The secondary nature of the affection explains this fact.

LOCAL APPLICATIONS AND TREATMENTS.—Any local measures adopted

should be as little irritating as possible, and while instrumentation should be reduced to a minimum, that does not preclude the use of the catheter or the cystoscope when they are needed. Obstructive conditions of the urethra should be remedied, securing free and easy transit for the urine, for which dilating methods are preferable to cutting.

Irrigation of the urethra and bladder are often servicable where there is secondary infection. Much has been claimed for bichloride instillations, by the French school particularly, and Rovsing has lauded the effect of introducing strong solutions (5 per cent.) of carbolic acid to the bladder; but my personal experience and the reports of others are adverse to such heroic, irritating methods. The most serviceable local application I have used is oil emulsion of iodoform, say, a dram to the ounce of some bland oil, such as liquid vaselin. It is injected once daily, after emptying the bladder, and the patient is instructed to retain it as long as practicable, not expelling the "last drops" in urinating. The writer has used the same emulsion as an injection into kidney pelvis affected with tuberculosis, and apparently with much benefit, in several cases. A male patient who has been under observation for four years and was formerly severely afflicted with the various effects of vesical and left renal implication, has never been subjected to operation but has devotedly carried out all hygienic and local measures advised. He at first received a number of injections of the iodoform oil into the pelvis through the ureteral catheter, and has himself used the vesical injections of the same. In the period mentioned he has not only been relieved of all of the acute symptoms, the pain and frequency of urination, etc., but has regained much weight, strength and faculty for active employment. Test of his urine by guinea-pig inoculation recently failed to disclose any evidence of the tuberculous infection.

Instances of improvement or conditional recovery under non-operative measures are not unique in my experience. They are of sufficient number to give rise to a serious question as to whether all such patients should necessarily be subjected to operation on discovery of a moderate nidus of infection in one kidney, with possibly beginning of involvement of the corresponding ureter or the bladder. I believe I should

rather make haste slowly and first try the effects of the local and hygienic measures to demonstrate the extent of their benefit. Meantime, the patient will probably be brought to a better condition for operation, if it prove necessary, then he was before the institution of those measures. Where status is entirely changed, and the sooner there is serious involvement of a kidney, the it is removed the better.

PALLIATIVE OPERATIONS—In some instances the pain and irritation from tuberculous inflammation are so excruciating that some operative plan has to be adopted to alleviate the distress, if nothing more. The one favored is that of establishing a supra-pubic fistula, permitting continuous drainage of the bladder into a rubber receptacle which covers the opening. To the same end, Simpson suggested resection of the sensory nerves that come off from the third and fourth sacral trunks, and Watson has advised double lumbar nephrostomy, for the purpose of draining the urine directly from each kidney and not permitting its descent into the bladder.

Discussion

THE PRESIDENT:—Gentlemen, I desire to express the thanks of this Association for the most instructive paper on this subject, and while it has been customary with our annual orators, not to discuss their papers, I have always been of the opinion that we might get a great many things out of them, if we were to get up some discussion of the papers submitted.

This is something of a symposium on tuberculosis and the report of the Committee on Tuberculosis of the state comes in this afternoon, and I want to ask for that report at this time, putting it a little out of order, and then throw the papers and this report open for discussion.

DR. CHAS. M. REES:—The Doctor has told us a great deal of interest and value especially with regard to primary tubercular infections. We have been concerned with the subject Dr. Lewis has so ably discussed, namely—Primary Tu-

berculous Infection of the Uro-genital Tract.

A few years ago I operated and removed the ureters with an angry ulcer involving the entire intra-vaginal portion of the cervix. Although this ulcer had remained for a considerable period confined to the cervix, there was no evidence of involvement of the surrounding structures, and the ulcer had some characteristics which made it unlike the friable, granular ulceration of cancer. Operation was made with a diagnosis of cancer. Careful study of the specimen found it was not an epithelioma, but a tubercular infection without involvement of the endometrium, nor of the tubes of ovaries. Careful study of the case could not discover infection elsewhere. We were acquainted with the not very infrequent tubercular infection of the ovaries and tubes, travelling down through the tubes to the endometrium. But careful search of literature we were able to find but a few cases recorded of a primary tubercular infection of the cervix.

Dr. Baker has since reported a case similar to the one above mentioned, upon which he operated. I was very much interested in Dr. Lewis's paper, and felt that the infection primarily was rather more common in the Uro-genital tract than has been given to us by Dr. Dawson, or by Dr. Ravenel.

In recent years so much has been done in the surgery upon tubercular kidneys. Those of us who are interested rely in the surgical side of the question have been led to believe that primary infections were rather common in the kidneys and bladder.

DR. T. P. WHALEY:—I listened with much pleasure to Dr. Lewis's paper. There is one question which I would like to ask him as regards the time for removing the kidney. If it is his practice to remove the kidney upon diagnosing the condition before it has attacked the bladder, or if he waits until it has attacked the bladder and then removes the kidney, or, if for instance, he had diagnosed tuberculosis of one kidney by means of urethral catheterization would he think it best to remove that kidney then, or would he wait for the process to

extend further and for the other kidney to gradually assume the work of the damaged kidney?

Now, concerning primary infection—Primary Tuberculosis of the Kidney. About a year ago I gave a talk before our Society on Cystoscopy and stated that there was such a thing as Primary Tuberculosis of the Kidney. Dr. Dawson stated there was no such thing as Primary Tuberculosis of the Kidney, and that all kidney infections were secondary. I was not in a position to state positively, at that time, that Primary Tuberculosis of the Kidney occurred; but since then I have had occasion to look into the subject and find that there are numerous cases of Primray Tuberculosis of the Kidney reported at autopsy.

DR. A. E. BAKER:—Mr. President, I would like to hear Dr. Lewis's opinion on the subject of Dr. Rees's remarks.

Some time ago I operated on a lady (I know nothing of her previous history) but after I got into the abdomen her fallopian tubes were about twice the normal size, inflamed, reddened and dotted with miliary tuberculosis—tubercular deposits. The coils of the intestenes adjoining the pelvic organs were also very much inflamed and red with tubercular deposits. The appendix was adhered to the tubes on its side, and one-third of this appendix was reddened and contained these tuberculas deposits. The ovaries were not at all involved. I removed the tube and the appendix, but could not remove the coils of the intestines, so I would ask the Doctor to give his idea about the prognosis of my case.

DR. LEWIS:—In regard to the question propounded by Dr. Whaley I am very glad that he has asked it—not that I am going to answer it very well, but I have been asking that same question for the past two or three years. What brought it to my mind in rather a shocking way was my observation in a clinic some time ago. I saw there the opening up, the exposure of a kidney that had on its surface about one-half dozen little tubercles, not a serious involvement—unless that in itself be called a serious in-

volvement, enough to indicate removal.

Now, if what I have been arguing in this paper is true, that tuberculosis, though it does involve parts of the urinary tract, is a curable affair, one that

isn't without cheer, not hopeless—if that is correct, certainly one cannot consistently go in and take out every kidney that is involved to this small degree; and, although I have asked that question of a number of different surgeons, and have gotten different replies, my own opinion is that I am yet to be no more seriously involved than that Dr. Whaley has just spoken of. I have heard surgeons who had large experience say it is the proper thing to go in and remove such a kidney. But I would not do it, because I have seen success from other modes of treatment, as mentioned in my contribution.

If I had an eary case of tuberculous kidney, I would not want that kidney removed until it had been necessitated by failure of less radical measures. That is my own personal position. Possibly after a few years time, it will be found not tenable, but that is what I think now.

Others would say it is converatism to remove the kidney, but I am yet to be convinced of it, being from Missouri.

Now, on the other hand, Dr. Baker proposes a question that is a little different: When you remove a tube, an ovary or an appendix, you are not removing anything that is essential to the economy of the organism. If you get the original focus you go far to the removal of the infection from the body.

Thousands of cases of tuberculous peritonitis have been cured by opening the abdomen and admitting oxygen in there and closing up again, which isn't a serious matter; but when you take out a kidney from an individual, he has only one other, and if that is damaged his outlook for recovery is poor indeed. Therein lies the difference, and argues for conservatism on this point.

I wish again to voice my sincere thanks for this opportunity of meeting the profession of South Carolina. I don't know any state in the Union that I would rather have gone to, or with equal happiness, than to South Carolina.

INTRA-PERITONEAL INFUSION OF NORMAL SALT SALUTION.

By Dr. A. B. Knowlton, M. D., Columbia,
South Carolina.

On October 8th, Dr. Donald Salley, of Orangeburg, brought me a young lady, 18 years of age, who had had an acute attack of appendicitis for five days and who, notwithstanding Dr. Salley's protest, had declined operation until that day. I operated at once and removed a thoroughly inflamed, catarrhal appendix. The case was a clean one in every respect. At seven a. m. on the third day following, the condition of the patient was entirely satisfactory and as follows: temperature 98.7, pulse 80, resp. 18, abdomen flat and soft, bowels had moved the day before. No nausea, no restlessness; had taken breakfast and was doing satisfactorily. In one hour after this observation, patient's condition grew suspicious. Pulse began to increase in frequency, face became cyanotic, skin dry and hard, feet and hands cool, and patient feeble and limp, but no restlessness nor sweating. This condition increased in severity for nine hours, during which time Hypos. of Strych., Dig., and Adrenalin were administered at stated intervals. Two subscapular and two submammary hypodermoclyses of normal salt solution were given, which, by the way were not taken up, but remained at the points of deposit beneath the skin. Nothing seemed to stay the gradual decline. At the end of nine hours the patient was unconscious and moribund, had not spoken for several hours, pulse 160, felt only in carotids, temp. 97, arms cold above elbows and legs cold above knees, nails, lips and cheeks cyanosed, skin hard and dry and patient evidently about to die. At this juncture I turned patient over on her right side, plunged the saline needle into the peritoneal cavity on a line between the umbilicus and the left

iliac spine, and about one inch from the latter, and deposited three pints of sterile, normal salt solution into the abdominal cavity. About twenty minutes were consumed in the procedure, after which the patient turned over on her back, and placing her hand upon her epigastrium, said aloud, "My, I am as full as a tick." I had discontinued all other treatment because of its apparent inefficiency. In half an hour there were marked evidences of improvement and the patient went on to a complete recovery. Whether the intra-peritoneal infusion of saline solution saved this patient or not, I, of course, am unable to prove. As to my own opinion upon the subject, I can be most positive—I believe that it did. I indited a circular letter to six of our most distinguished surgeons, placing the case before them exactly as I have above described it and asked the direct question whether or not the normal salt solution in the peritoneal cavity was instrumental in saving the patient's life, and asking permission to quote them in this article. The replies were as follows:

DR. JOSEPH PRICE, PHILADELPHIA.

"I rejoice that you saved your patient—the hot solution was in the peritoneal cavity or you would not have had the result."

DR. WYLLIS ANDREWS, CHICAGO.

"It seems to have been a life-saving procedure in your case. As a stimulant and restorative, I think it ranks ahead of hypodermoclyses and rectal instillation, but is a little less, (little less, mark you gentlemen,) efficient, than intra-venous injection."

DR. HOWARD A. KELLY, BALTIMORE.

"In view of your clear presentation of the case and the prompt result, I do not see how one can escape the conclusion that you relieved your patient by injection into the peritoneal cavity. Such facts ought to be put where they are accessible."

DR. CHAS. MAYO, ROCHESTER, MINN.

"We have great faith in salines in restoring the vital force, and in some way I cannot help but think that the

* Read before Section on Surgery, S. C. Medical Association, Summerville, S. C., April 22, 1909.

condition was essentially through the nervous system, and that the slight shock followed by the stimulation of the saline was sufficient to develop a reparation process. The case you describe in your letter of the 19th inst. is a most interesting one, and the result of the treatment seems to justify the seriousness of the measure."

DR. JOHN B. DEAVER, PHILADELPHIA.

"To my mind, this is a unique case, and I am unable to explain the rationale of the treatment you so heroically gave. I really congratulate you upon saving your patient's life."

DR. J. G. CLARK, PHILADELPHIA.

"If you could inject the solution into the abdominal cavity without perforating the intestines, it would be alright."

There is only one danger in thrusting the saline needle through the abdominal wall and into the peritoneal cavity, viz., that of intestinal puncture and consequent peritonitis. To my mind this danger is exceedingly slight. Years ago Halsted of Baltimore demonstrated the exceeding toughness of the intestinal submucosa, and at a very recent date Gould, of Boston, in his magnificent treatise upon intestinal anastomosis has shown beyond all reasonable doubt the resistance and almost impenetrability of this coat. I have repeatedly made the experiment of attempting to plunge the aspirating needle into the bowel while the operative subject lay with open abdomen before me and always with failure, except when the intestine was firmly held in position while the puncture was being made.

One of the oldest operations known to surgery is "Tapping" for true peritoneal ascites, in which needles new and old sharp and blunt, big and little, clean and dirty, have for centuries been fearlessly plunged into human abdomens without intestinal puncture. Again, should the end of the needle penetrate the gut and deposit the solution intra-intestinal instead of intra-peritoneal, practically the same result would be attained and no damage done. Again, if the needle has

a round conical point instead of a cutting edge, and if it is not too large, no damage whatever will be done, for as soon as the needle is withdrawn the fibrous submucosa closes the opening at once. If the needle is too large, or if it has a cutting edge, leakage from the bowel may possibly occur, and peritonitis result. I beg leave to submit a needle which I have made for the purpose. The point is sufficiently sharp to enable it to be thrust through the abdominal wall, but too blunt for the intestines to be injured. The fluid escapes from the canula, half an inch above the point and not through it. By use of this needle, I will yet show that there is no real danger of puncturing the intestine under the procedure suggested. There are many reasons why, in my judgement, the treatment maybe considered rational.

First. It has been demonstrated by Clark of Philadelphia, and proven by other observers and experimentors, that one eighth of a man's body weight of normal salt solution will be absorbed from the peritoneal cavity by the subdiaphragmatic lymphatics and stomata in twenty-four hours. This means that a man who weighs 150 lbs., can absorb 18 pounds, (18 pints) in twenty-four hours.

Second. For many years it has been the practice of many eminent, and no less successful surgeons, to deposit within the peritoneal cavity after laparotomy, various quantities of normal salt solution, for the purpose of counteracting surgical shock and hemorrhage, both through absorption of the solution itself, as well as by the effect of the heat-bearing fluid. The splendid efficacy of this procedure is testified to by every surgeon who has practised it. It should make no difference to the patient, nor to the fluid, nor to its rate of absorption, whether such deposit is made through an abdominal incision or through a canula thrust through the parieties.

Third. If, as suggested in the letter from Dr. Chas. Mayo, the pathological condition in the above reported case, was of nervous origin, or if, as stated by Dr. Joseph Price, the patient had a bad cardiac center, the peritoneal cavity seems to me to be the place preeminent for the

normal salt solution.

Fourth. Dr. Howard A. Kelly says normal salt solution is one of the most useful agents we possess in combatting sepsis upon serous and mucous surfaces.

Fifth. From bone to adipose tissue, the entire body possesses an affinity for normal salt water which the careful observer cannot afford to lose sight of. It is common knowledge that this solution placed beneath the skin, in the adipose infusion should also be applicable in tissue, in the vessels, in the rectum and in the peritoneal cavity will be taken up by the system and appropriated to its use. It is common knowledge among seamen that when drinking water gives out in mid-ocean, thirst may be quenched by suspending one's body in sea water, showing that this fluid will even pass through the skin in certain depleted states of the system. Intra-peritoneal salt infusion should be especially applicable where quick results are desired, and where it is impossible to secure sufficient asepsis to infuse into the veins. Intra-peritoneal infusion should also be applicable in those cases where by reason of injury to the bowel (or inflammation thereof) rectal instillation would be prohibited.

As is well known the chief cause of depletion in Asiatic cholera is the rapid abstraction of water from the system. I do not hesitate, therefore, to suggest intra-peritoneal infusion of normal salt solution as possibly one rational treatment in this disease.

So also in surgical shock, loss of blood from operation, typhoid or other hemorrhage, and also in many asthenic states where replenishment of the vascular system would be conducive to benefit. Objection to this treatment has been made on the grounds that where quick results are demanded the intra-venous route is the best and where slow result will do, the hypodermoclysis and the rectal instillation will suffice. The above objection, it seems to me, is on a par with that made by the man who says that when he wants quick catharsis he uses croton oil, and that when he wants slow catharsis he uses senna, and that consequently there is no need of calomel nor podophyllin, a statement which is illogical in the extreme.

I hope that it will be understood that I am making no fight against intra-venous injection, hypodermoclysis or rectal instillation, all of which have served me good and sufficient turns. I only advocate the intra-peritoneal route of normal salt solution upon scientific grounds and as a therapeutic procedure which, I believe, is entitled to a place upon our list of medical and surgical therapy. If abdominal puncture can be done without danger of perforating the intestine, there is no reason why, in cases of acute general septic peritonitis, the patient should not be treated by the Fowler position, with multiple puncture and infusion in the upper abdomen and a drainage incision in the pelvis.

I beg leave to present a dog upon which I have made a small experiment with intra-peritoneal infusion. It is now fourteen days since he has had water or any other fluid by the mouth. I have kept him chained and locked in my barn during this time, and can therefore vouch for the truth of this statement. He has been given what solid food he wanted from day to day, and he has had one intra-peritoneal infusion, as herein suggested every other day during this period. A spot in each flank was shaven, scraped with soap and water, and asepticed with alcohol. The sterile saline needle was plunged into the peritoneal cavity every other day to a depth of two inches, in order to wound the intestine, if it were possible to do so. The dog has remained in good health, absorbed all the water, given no evidences of peritonitis nor other physical discomfort. It is my purpose to continue infusing him every other day into the peritoneal cavity and to see how long he will continue to thrive without water by the mouth.

So far as I am aware, this is the first published suggestion as to the efficacy and harmlessness of intra-peritoneal normal salt infusion, as above described, and the first published case reported in connection therewith.

Discussion

DR. BRANSFORD LEWIS, St. Louis, Mo.
—The importance of this contribution

is so great that I can not refrain from making some comment on it. I think there are few surgeons who are not convinced of the great assistance contributed by saline solution introductions into the peritoneum under conditions mentioned in the paper. Few surgeons could be convinced that they have not seen lives definitely saved by the introduction of saline solution in some manner. There are different methods of doing this—by the alimentary tract, and by intra-venous injection.

Dr. Knowlton's case is striking as evidence of the good to be derived by intra-peritoneal infusion. Certainly we would want more evidence on the subject to contribute to our belief in this method. I have one suggestion to make about the needle which the Doctor uses for the injection of the normal salt solution into the peritoneal cavity, in order to avoid any possibility of injuring the intestine, possibly because some of us are still unconvinced that there is no danger in the needle, and because in case death should occur, the family might think it was due to the kind of treatment used. To protect himself from such criticism, it might be well still further to improve the needle.

It has occurred to me that by using a small trocar and canula, the former having a round conical needle point, without the cutting edge, might contribute to the ease of the operation and to my mind, is the only suggestion which can be made on the subject. Certainly, I want to see the adoption of this treatment at sometime, but I want also to see adopted any mode of conservation against critical remarks on the subject. I wish to thank the Doctor for this contribution, and for the success of his procedure, and I shall take pleasure in mentioning it to my friends in St. Louis.

DR. A. B. KNOWLTON, Columbia, S. C.—I wish to thank Dr. Lewis for his suggestion and I will proceed to so alter the needle as to make it adopted by all. In regard to the permanency of the benefit to be derived from this treatment, I will say that I do not object to intra-venous injection, but I don't believe we can maintain the human body for two weeks by that method; I don't object to

rectal instillation, but I don't believe a man can be supplied with all the fluid needed for two weeks, by that route. This dog has lived two weeks without water, and he is now in pretty good condition. He has been passing water from the bladder freely.

THINGS THE DOCTOR SHOULD KNOW ABOUT MILK.

F. A. COWARD, M. D.

Why standardize drugs and guess at the composition of the foods we prescribe? You prescribe a "milk diet" for your patient—he takes a quart of milk in twelve hours—do you know what he is getting? You have vague knowledge of the so-called normal percentages of the important milk constituents, but few, I am afraid, really have any definite idea of the food values of these percentages when applied to the milk in question. The most salient point I wish to make is that these percentages may not fit the milk in question at all. If they do—or if they do not—it is your business to know it.

Here are the possibilities of the quart of milk that your patient drinks: He may be getting 1-3 oz. of butter fat, or 2 oz.; he may be getting 9 oz. of milk sugar, or may be 1.8—just twice as much he may be getting $\frac{1}{2}$ oz. of albuminoids, or 5 oz.—just ten times as much; he may be getting three million bacteria in each teaspoonful, or he may be getting only a hundred thousand; he may be getting partly digested hay, tubercular sputum, lochial discharge and fly wings and legs, or only some of these. As the Spanish say, Caramba! Now any doctor can and should ascertain, approximately, the composition of the milk he prescribes. Be as careful in the selection of your cow as you are in selecting your drug store; demand the same care, cleanliness and accuracy of your dairyman that you expect of your pharmacist. If the cow, the family's pet and pride, is kept in the

* Read by title before Section on Medicine, S. C. Medical Association, Summerville, S. C., April 22, 1909.

back yard, like a pig, and milked by a slatternly wench who washes the milk cans as soon as she can get through with other household vessels, then it is up to the physician treating a patient in said house to "discover" in as tactful a manner as possible that the milk is not agreeing with his patient and some other must be tried.

Particularly should the milk supply and composition be looked to when infants are the patients. Now any physician who can analyze urine can analyze milk, if he will. Special Babcock bottles are now made to fit the office centrifuge and two or more fat estimations can be made therewith in ten minutes; the urinometer will do for determining specific gravity; gravity and fat being known, total solids are determined by arithmetic; albumen is measured, as in urine, by the Esbach Albuminometer; sugar by titration with Fehling's Solution and so there you are. The details of these procedures and the normal values and variations will be found in all your medical chemistries, clinical diagnosis manuals and in the pamphlets issued by the various manufacturers of apparatus.

In these days of pure milk agitation and sanitary reform, the people of small towns and rural communities look to their doctors, as learned men, for information and advice on all questions of sanitation. Those of you thus having knowledge thrust upon you, as it were, must be honestly and seriously prepared to answer such questions and give advice in accordance with modern ideas. Take these hints home for regulating your milk supply.

Have your cows milked over cement or other water tight floors, which are wet immediately before milking begins; wash udders with soap and water and dry with clean cloth; have milkers wash hands similarly, and emphatically insist upon their milking with dry hands—no grease, milk, nor saliva on hands being allowed. Use narrow opening pails, as illustrated; strain through boiled cheese-cloth and cool with ice water immediately; carry milk from each cow out of the stable as obtained; bottle and seal and keep packed in ice if possible.

Everything intended for contact with the milk should have been washed and afterwards boiled; do not rinse anything with anything after the last bath in boiling water. It is obvious that sterile milk for general use is an impossibility, therefore keep this one point in mind and drive it into the minds of all around you: the one best agent in the fight for pure milk is COLD. Get your milk down to 40 degrees F. if possible and keep it at that point in a sealed container until consumed; always remembering that milk is just as clean as the dirtiest thing it touches and no cleaner.

DIURESIS DEPENDENT ON CIRCULATORY CHANGES.

John Forrest, M. D.

Two years ago I read a paper at the meeting of the association in Bennettsville on "The Action of Some Familiar Drugs". The real object of the paper was to show that the diuretic action of drugs influencing the circulation was due not so much to increase of pressure as to diminished resistance in the vascular system. Evidently I failed to make myself understood, for our able editor, after publishing the paper in the Journal, expressed the gratification it would afford him to open the columns of the Journal to Dr. Sajous and myself for a controversy over the action of calomel. And now Dr. Geo. E. Thompson in his article in the Journal of February last says that, "while my argument seems to hold good from the standpoint of Physics, it does not seem to take into account the physiological ratio existing between the force and frequency of the cardiac impulse, that is a diminution of the force of the heart beat is compensated for by the acceleration of the frequency, and vice versa. But just what such compensatory action has to do with the point I wished to make is no more clear to me than that point seems to have been to him. I have therefore brought up the

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subject again at this meeting, in order not to leave a matter which I consider to be of no little importance, in an atmosphere of obscurity and doubt.

The groundwork of all the progress that has been made in Electric science today is that celebrated formula called Ohm's Law, a law, however, that is far more general than Electric Science, being in fact universal in its application, and governing the urinary no less than the electric flow. And yet, so far as I can find, no notice is taken of it, and no application is made of it to explain the phenomena of diuresis by any writer on either Physiology or Materia Medica. That this is so we must infer from the fact that no mention is made of it in such works as Landois & Sterling's Physiology, nor in the Works on Materia of Lauder Brunton, Sollman, Cushny, Butler or others.

For every current there are two factors, Pressure and Resistance, and neither the one nor the other can be neglected in our estimation of such current, and the current strength may be increased either by increasing the pressure or diminishing the resistance. Now in this connection it must be noted that Blood Pressure is not increased by contraction of the blood vessels but rather the contrary, for contraction of the vessels is an obstacle to the blood current, increasing the resistance to it and opposing it. It is the vascular tension that is increased by contraction of the blood vessels, not the blood pressure, which may or may not remain unchanged. But increased vascular tension means increased vascular resistance to the blood current and diuresis in that case must be by diminished resistance and not by increased pressure.

Let us see what the different authorities have to say on the subject. Thus Lauder Brunton says that he found that on injecting Digitalis into the circulation of the dog, "the blood pressure rose as it always does after Digitalis, but (evidently to his surprise) "the secretion of urine was either greatly diminished or ceased altogether, (owing as we should say to the increased resistance to the blood current.) "After a while" he adds "the blood pressure began to fall," (a statement we would dispute, substituting

for it "the resistance began to diminish," "then," as he continues, "the secretion rose above its normal, or as we should prefer to say, "diuresis set in as the result of the diminished resistance and the increased blood current.

Sollman says that "the secretion of urine is roughly proportional to the glomerular blood pressure, which is not, however a very satisfactory account of the process.

Cushny does not throw any more light on the point under consideration.

Butler says that "the diuretic action of Digitalis is due to increase in blood pressure in the glomeruli of the kidneys."

The Physiology of Landois & Sterling is very full on the subject of the various factors that increase the secretion, but amongst them all there is no mention of "diminished resistance," nor indeed is the factor of resistance referred to at all by any of these writers. Indeed it seems to be the general opinion that in diuresis the blood pressure has some way or other to be increased, either generally or locally. But, from our point of view it is the blood current, not the blood pressure that needs to be increased, and that through diminished resistance and not by increased pressure.

As an illustration of what occurred in the case above cited by Brunton, as well as in similar cases of increased diuresis, we would call to mind the recent collision of two vessels in the North Atlantic one of which, but for its water tight compartments would have been foundered at once. The resistance of these postponed the disastrous result, and the public mind was kept for days in an agony of suspense as the critical changes occurring from hour to hour were flashed to the world by wireless telegraphy. We learned that the water tight compartments of the vessel most in danger of sinking were still maintaining their resistance although subjected to enormous pressure, and in momentary danger of giving way. At last the inevitable came and the diminished resistance was followed by the flood that submerged the vessel, an exact representation of the diuresis that occurs with high vascular tension.

In what I have said I have made no pretence to a full description of the phe-

nomena of diuresis, desiring only to call attention to what seems to have been generally neglected in the accounts usually given of the action of diuretics dependent upon changes in the circulation, and to diminish vascular resistance as a prime factor in an increased urinary flow

SOME MODIFICATIONS OF THE CLINICAL COURSE OF ACUTE LABOR PNEUMONIA.

Robert Wilson, Jr., M. D.

It is a dangerous habit, into which most of us permit ourselves to fall now and then, to allow our conception of diseases whose course is so sharply defined that striking modifications and departures from what is usual may not occur, and unless we keep this in mind, we are liable to make mortifying mistakes occasionally. Not many years ago not a few physicians would decline to make a diagnosis of typhoid fever if the patient recovered in a shorter time than three weeks, and all of us have not yet reached the point of acknowledging that a simple non-membranous inflammation of the faucial and tonsillar mucosa may be genuine diphtheria.

This tendency has been impressed upon me frequently in my work in pneumonia. Acute lobar pneumonia is one of the easiest of diseases to recognize when its course follows the lines of the classical description. At times, however, its course is modified so considerably that diagnostic difficulties may arise, and it happens sometimes to all who are fortunate enough to follow their cases to the post mortem table that the diagnosis is made in the dead house.

At the risk of reciting a twice told and familiar tale I shall speak in this paper of some of the modifications which I have met in my own experience. Text books describe a number of varieties of pneumonia, which are not, however, true varieties or different forms of the disease, but the modifications due usually to the suppression of certain symp-

toms generally regarded as essential to the so-called typical case. These modifications are frequent enough to render them of the first importance, and unless we are awake to the possibility of their occurrence we may overlook easily the real nature of the malady.

It is not often that the initial chill is absent, and, save in deep seated central pneumonia, pain is likewise very constant. Both of these symptoms however, may be wanting in the asthenic type of pneumonia which is met with in the aged and in those whose strength has been wasted by chronic illness. Concerning the range of temperature Struemppell writes that "Pneumonia is, almost without exception, accompanied by a more or less high fever with a very typical course," and it is generally customary to regard the temperature course as one of the most distinguishing features of the disease. But apyrexia is occasionally observed. Musser and Narvis quote Alton and Landis as finding nine cases with subnormal temperature among 991 cases occurring in the Philadelphia almshouse. I have never seen a case presenting a subnormal temperature throughout, but I have seen it for a period of more than twenty-four hours after the chill. One morning I found in my colored ward a young negro who was recently admitted with the history of having had a chill the day previously, associated with severe costal pain. His breathing was not markedly hurried and his temperature was 97. Upon physical examination nothing was found anteriorly, but posteriorly on the left side between the scapula and the spine a small area was discovered which gave a dull percussion note and characteristic tubular breathing. By the following day the case had developed typically with a temperature of 103 and a distinct physical signs anteriorly. Twice recently I have met with cases showing an absence of fever during the early stage. The range of the fever is subject to considerable variation, a low type with remissions nearly touching the normal is seen not very infrequently.

The termination by a critical fall is usually considered to be the most characteristic feature of the temperature

* Read before Section on Medicine, S. C. Medical Association, Summerville, S. C., April 22, 1909.

curve but when we follow closely a large number of cases we are struck by the frequency with which pneumonia terminates by lysis even when entirely uninfluenced by treatment. I have learned to lay much less stress upon crisis than formerly. Termination by lysis is especially seen in the aged and in the terminal pneumonia of chronic diseases, but I have seen it in young subjects in whom particularly we are taught to expect a crisis.

Another symptom upon which the stress is laid very properly is the relation between frequency of the respirations and the height of the temperature. Osler says there is no other acute disease in which so marked a disproportion is seen as frequently as in pneumonia. In a few obscure cases I have practically based a diagnosis upon this important sign. Instances are met with, however, in which the rate of breathing is not high enough to attract attention. Only a few weeks ago I hesitated for forty-eight hours before making a positive diagnosis because the respirations were very little increased, other symptoms and the physical signs not being very clear.

It may happen that the cough is either very slight or absent. This, like the low temperature range, is more apt to be a feature of the pneumonia in the aged and in the debilitated rather than in the young. An old case of chronic interstitial nephritis in one of my wards without apparent cause developed a slight elevation of temperature ranging between 100 and 101 F., with neither cough, nor pain nor hurried breathing. After forty-eight hours a physical examination revealed slight evidences of pneumonia, and the diagnosis was later sustained by the autopsical findings. The expectation, usually distinctive, may be entirely lacking in the characteristic viscidity and discoloration. In the early days of my clinical work I made a diagnosis of pneumonia in the case of a young girl upon the basis of high temperature, slight physical findings and somewhat hurried respirations totally lacking in viscidity. This case resembled, in some aspects, typhoid fever but terminated at the expiration of eight or ten days by a typical crisis. Perhaps mistakes are more apt to be made

in cases marked by early delirium, especially if it assumes the type of delirium tremens which occurs not very rarely in the pneumonia of alcoholites. Another very illustrative case occurred a few years ago in my ward work. The patient was admitted with the diagnosis of delirium tremens, which apparently was correct. A slight unexplained elevation of temperature and complaint of costal pain suggested the advisability of making a careful physical examination, which resulted in the disclosure of sufficient evidence to justify the diagnosis of pneumonia. Twenty four hours later the opportunity was afforded of confirming the diagnosis before the court of final appeal. Cases of this kind give especial emphasis to the warning of Osler that if we do not take the trouble to make a careful physical examination of patients with delirium tremens we shall sometimes have the mortification of making diagnosis in the dead house which could have and which should have been made at the bedside.

The value of medical societies, especially to the young physician, is immeasurable in many ways. How many medical colleges convey a knowledge of this fact to their students? Are there a dozen in the whole country? To the shame of the colleges, no! Correct conduct as a physician in little things and big, toward his patients and toward his confrers, making for happiness and success. Are there a dozen medical colleges in the country that appreciate this? No, "All that is necessary is that a man should be a gentleman" is the excuse, but this is not true. The medical code is broader than the social code—*Jour. A. M. A.*

THROUGH all the anti-alcohol talk of the present day I can still hear the words of my brave old teacher—the greatest surgeon of his day—who, when leaving a case of pneumonia or apparently hopeless sepsis, would add as a final admonition "and the whiskey is not to be measured."—GEO. B. TWITCHELL, in *N. Y. Med. Journal* (May 22).

Minutes

Of The Society of Medical Secretaries.

This body was called to order in the ball-room of the Pine Forest Inn, Summerville, on Tuesday morning, April 20th, by Dr. S. C. Baker of Sumter, President of the South Carolina Medical Association.

Dr. Baker outlined the object of the meeting as follows:

"The object, ladies and gentlemen, of this meeting, as you know, is the organization of the County Secretaries into a body, which we hope will result in better work being done by the County Secretaries throughout the State. The first business, in meetings of this kind, is to get a record of those present, and as we have no roll available, the most practical way will be to pass around a paper and each one of the secretaries present will please enter his name and his county society thereon, and we will have that to work by hereafter.

A program has been arranged and a number of talks will be made by the several secretaries and by other members of the Association, in furtherance of this work. I shall call upon them later.

Before doing so I desire, from my standpoint, as President of your State Association, to impress upon you, as County Secretaries, the great importance of your work. The secretary is practically the "whole push" when it comes to keeping his county society together and in getting it to do good and effective work.

While the Constitution of each county society providesthat there shall be a committee on scientific work, etc.in each society it all comes down, as you know, to the secretary doing the work; for the committee and without hesitancy I say the county secretary is the most important man in the county society, just as the State Secretary is the most important man in the State Society. A poor secretary in either position means a poor society.

We the councilors and officers of the State Association want to rely on you to do your best—that will mean that your

society and your county, will show up well before the State meeting. Many things might be said about the importance of sending out notices of meetings; about taking proper notes of the transactions of these county societies—in regard to taking as full notes as possible of the discussions, etc. The discussions are the really valuable things in society work, from a scientific view point, and, along with the papers read at the county society meeting, the discussions should be taken down, then these discussions and papers should be sent to the editor of the Journal, so that all the balance of the county societies throughout the state will get the benefit of these meetings and discussions. Every man will thus have a part in the upbuilding of the Journal; every man will have a part in contributing to the reading matter of the Journal, and we will all, throughout the state, be benefitted by the work of each secretary.

The secretary of his county society is the man in the line of promotion, if he has any ambition to hold higher positions. The man who does good work as a secretary, is the man who comes into prominence in the Association, and the Association will not fail to honor him.

I feel that we in South Carolina ought to take the lead in regard to our State Secretaries organization. An analogous organization was effected in Chicago last year, at the meeting of the American Medical Association, the national body. The State Secretaries throughout the Unitel States were organized into a national association of State Secretaries.

Dr. Cheyne, the secretary of our state association was elected president of this national organization. I think it is an honor of which South Carolina as well as Dr. Cheyne may well be proud, and it is up to us to uphold his hands and to make our organization of State Secretaries worth while. There are a number of papers to be read according to the program and I will first call upon Dr. Walter Cheyne, our state secretary to speak upon the relations that exist be-

tween the State Secretary's office and the County Secretaries."

Dr. Cheyne spoke as follows upon the subject of—

"Relationship between County Secretary's Office and the State Secretary's Office."

Gentlemen, I just want to have a little condensed talk and if I can do any good, that is my entire object: to help everybody to do his work better. As a matter of fact, I believe that the relationship of the State Secretary's office to each County Secretary's office is like that of a father to a son: there must be intimacy. There must be that courtesy which should be extended to true relationship. It is very hard to have inquiries made by insurance companies, by the American Medical Association, and by different fraternal organizations, as to the standing of a certain man in the county in the state of South Carolina, and when I look upon my books, find that man is not enrolled. I write to the secretary of that county, asking about him, and I may get an answer and I may not. Now that is wrong, because we are doing that man about whom inquiry has been made, an injustice, perhaps a great deal of financial injustice. And I think each secretary ought to realize that he owes a duty to every man enrolled in his society: to see that his name is kept there, his address given, and his initials correct. Many times a name is sent in with no address whatever, and it takes another letter to bring that out. That takes stamps and letter-writing.

Just to show you the importance of proper enrollment in the State Secretary's office, I will tell you my experience at the Mayos. They simply go to their directory (and by the way, the information there is practically all gotten from the State Secretaries. I have sent them this list of over seven hundred names within the past week, which, of course, is an added duty to the State Secretary's office, but, at the same time, I think it a proper duty to give the names and addresses of those in good standing in their county associations.) At the Mayos they take this volume, get the man's record, if it is

proper and correct, and he is a duly and properly authorized member of that Association, he is just simply enrolled without question. If his name does not appear there, I imagine that man would feel tremendously embarrassed. And that is one of the great reasons why these matters should be attended to.

Now, the State Secretary cannot be responsible for that man in your county, unless you send his name up and keep up with the changes. That is the great trouble in the County Secretary's office—too many changes are made in the office. A man takes about a year to get the swing of things, then, when he has become a good secretary, he ought to be kept there. It isn't going to do him harm, and the second year's work is a great deal easier than the first year's work, and he can thus simplify matters.

A few points in regard to the system of keeping things: I have made some cards here which I would like you all to see afterwards. Here are the member's cards sent out to county members. These should be sent in to me. Dr. Whaley, in his report in 1905, when he purchased this card index system, reported back to the Council that but two counties had made him any returns, after sending all these out. That is wrong. If you have a card-index system that you keep up, it is the best thing. If you have a card-index system that you do not keep up, you had better throw it away and get down to paper. A card-index system is the simplest thing, if you will attend to it. If any member wants a few of these cards for his county society, just take them along.

I want to read you a note from a friend of mine in New York, who is State Secretary of the largest state association in the United States. He has over six thousand members in the state of New York. He has a corps of stenographers, who are kept busy all the time, and, gentlemen, their fiscal year is the same as ours—it ends January 1. On January 30th, Dr. Townsend, the State Secretary, reported that every county secretary had sent in his report for his county, and that every man had paid! Just think of it! That is organization, and there are six thousand members. Now, we can do

what we have to do, without so much noise. We do not spend a good deal of money in the Secretary's office, and as long as there is good work being done, money has got to be spent. I don't believe in doing a thing improperly. If there is any way to do it well, it must be paid for.

(Letter is here read)

As this organization of the county secretaries is going on all over the country, there must be some good in it. I have here a journal of the Missouri State Medical Association. Their organization has been in action now two years, and I have a copy of the Constitution and By-Laws for the Missouri Society of Medical Secretaries, which I will submit to you later, if you wish.

My idea is that we have a little friendly discussion on the organization of the secretaries. Let the Secretaries have a chairman, vice-chairman and a secretary in his organization, their meeting to be held at the time of the annual meeting, and to have the practical methods and other matters that may be interesting discussed by them; but the Secretary's organization ought to be just between themselves, the President and Secretary of the state organization and the Councillors. I think in these meetings the Councillors should always be here, because they are men who are familiar with the workings of your Society, and they may revise, correct and change any errors they may have seen during the year in the work of the county societies. If I can be of any assistance to you, I shall be glad to help you out.

THE PRESIDENT: The general assistance that the county secretaries can give in the upbuilding of the Journal is one of the most important features. I desire to introduce Dr. Mayer, of the Councillors.

DR. O. B. MAYER.

"The County Secretary and the Journal."

I cannot say very much more than has already been said, in regard to the county secretary and the Journal. However, I would like to say a few things in regard to the county societies, particularly. I

have been almost all over the state of South Carolina, during the past two years, and have seen the societies in most of the districts and where in some instances, perhaps, the county society will never be an ideal one, yet there a number of good men in every county who are doing fine work in upholding organizations which are the real life of the State Association, and they are doing not only that, but a great deal of good work in the betterment of the conditions. But if you will read the Journal, after you have been around the State and attended a few of the society meetings, you will wonder where all this good information has gone. To illustrate: on my way to another place, not long since, I was compelled to spend the night in Columbia, and was invited to attend the meeting of the Richland County Medical Society. They had an excellent meeting and a case was reported which they said was the third case ever reported in the United States. It was a very interesting case, and I venture to say that case will never find its way into the columns of the South Carolina Journal. That is where the County Societies can be of immense importance to the Journal, they can see that these cases do find their way to the State Association. This was where a boy's palate had adhered to the posterior wall of the pharynx, and there was no communication between the nose and the back of the pharynx. I understood Dr. Moore to say that was the third case ever reported; and while I was recognized in the meeting I wasn't asked to say anything, so I take this opportunity to tell you about it. That case will never get into the South Carolina Journal; and all these interesting cases, reported at the quarterly meetings of the Society are hid away. That isn't the way to build up the profession of the State, or the Journal.

At Greenville County, the other day, they had a very interesting case of tuberculosis of the skin. That case—that boy—is going to be treated by the direct rays of the sun, all the time. I do not see the doctor here whose case it is, but that case will never get into the columns of the Journal. And that is the point I am making now. The secretaries of the

county societies can supply all the good information that comes to the forty county societies—there are that many, and there are probably twenty-five hundred physicians in South Carolina. There are probably eleven hundred, more or less, connected with the county societies. Are not the writings, the knowledge and speakings of eleven hundred active practicing physicians in South Carolina, worthy of being put in print? How are the rest of us to be informed and educated, if we don't see their paper? If they put their papers in their pockets, we don't get their knowledge. The idea is, the profession must help each other in the knowledge which they possess. Every man holds his medical knowledge in trust. Did he not receive all the knowledge of the physicians who have gone before? They have given it to us without cost or price, and we are bound to give it to the remainder of the profession. Now, we all know how much good the county societies did through the South Carolina Medical Association and the Journal, in contending with the insurance companies in this State. We won that fight, and we could not have won it in any other way. And if we had not known that the Secretaries were backing us up, we would not have won the fight.

I do not believe (and I say this without anything personal to any one), that anybody ought not to accept the office of secretary, unless they are going to discharge those duties, they are keeping some one away from the office who would discharge them, and they are handicapping the Secretary of the State, because that Secretary has much work to do. If they will not assist him, they are hindering him, and I hope this organization will come up to all our expectations.

DR F. M. DWIGHT:—I wish to say a word in defense of the Secretary of the Columbia Medical Society. She has been absent in the North for several months, taking a special course, and has not been able to do as much for her society as she otherwise would. I endorse every word Dr. Mayer has said, but I wish to explain about the Secre-

tary of the Columbia Society.

DR. MAYER:—I am very glad Dr. Dwight made that statement because every one knows there is no better secretary in South Carolina than Dr. Baker. I should have explained that Dr. Baker was away.

THE PRESIDENT:—I have always felt that South Carolina was the greatest State in the Union, but did not know she was so far ahead as Dr. Mayer's remarks have brought out. Dr. Mayer stated that it was his recollection that that case of post nasal channel obstruction was the third reported in this country. I happen to know an identical case, now in the Sumter Hospital, which I saw two days ago, the patient of Dr. Wilson here, and it shows South Carolina has two out of five of these remarkable instances of anatomical deformity. Dr. Wilson ought to record that case, as he is Secretary of the Sumter County Medical Society, and see to that it gets into the Journal, and Dr. Baker ought to record the other one.

Wilson's case is a white boy.

ALLEN J. JERVEY, M. D.

Practical Methods in the County Secretary's Office.

When Dr. Cheyne wrote me last month and asked that I wrote on "Practical Methods in the County Secretary's office" the request came as a postscript to a letter acknowledging the receipt of a much-belated report from my office. No doubt our satiric secretary smiled to himself when he read my consent to do so.

I wish to preface my remarks by saying that I consented to read this paper not in the spirit of dictating methods to you but only in the hopes that my observation may provoke a generous discussion from which we may all learn something that will be of practical utility in conducting our offices.

It is not my function to go into the importance of the County Secretary, his relation to the State and American Medical Associations. That is readily recognized when we remember that the

County Society is the unit of the whole structural fabric. A system of wheels within wheels. The turn will develop and multiply power in the larger wheels.

In the United States there are 1997 of these units of which 39 are in South Carolina.

The work of the County Secretary resolves itself into three propositions: He must adopt methods to increase the membership of his society until it includes every eligible physician in the County; He must attend to the records of his office i. e. must have some orderly arrangement of his papers, records, etc., He must see to it that the meetings are made attractive to the members in order that the full membership be maintained. My remarks then will be taken up under these three headings.

1ST.—INCREASE OF MEMBERSHIP.

Only seven years ago when the A. M. A. met in St. Paul and listened to the report of the committee on reorganization a liberal estimate showed that of the hundred and twenty-five thousand physicians in the United States not more than thirty-five thousand were members of any Medical organization, or in other words that there were at that time ninety thousand without any professional affiliations whatever. To-day the total membership of the County and State Societies composing the A. M. A. amounts to over seventy thousand, or fifty-six per cent.—a vast improvement indeed, but the work of getting every eligible within the ranks is, as you see, far from complete. In South Carolina we have thirty-nine organized County Societies with memberships ranging from fifty-seven down—a total membership of 650. The total number of physicians in the state is 1,100 which leaves a balance of 450 non-members. It goes without saying that every efficient secretary will have a compleat list of the physicians of his county and that he will also know the name of every member of his society. It is a simple and easy matter to check the membership list with the list of physicians of the County and thus make up a list of non members for the County. Probably a few of the names found thereon will be

those of undesirable individuals who for various reasons would not be acceptable to the County Societies. The bulk of them, however, are well meaning and entirely reputable physicians whose lack of interest in Medical Organizations is due mainly to the fact that they have never been shown its important bearing on their professional work and their relations to the public.

No County Medical Society has done its full duty unless it has been given every one of these eligible, desirable and reputable physicians an opportunity to become a member of the Organization. Regardless of personal feeling everyone who comes within the membership restrictions laid down by the State Association should at least be asked to affiliate with the organized profession of his County. Not only should this be done once but repeatedly and as often as necessary until the Society embraces every physician in the County whose presence will be an addition to the Organization, or who needs the Society for his own improvement.

The following letter I wrote some months ago to every eligible non member in my county and while at first the results seem nil later it bore proof which justified the effort.

Dear Doctor:—On looking over the list of regular Medical practitioners in this County I find that you are one of the few not a member of your County Society. Why is this Doctor? We want you in the fold and I am taking this opportunity to write and ask for your letter of application at once. The more united we stand the stronger we are so get in line and lets pull together for our common cause. The dues for City members are nine dollars per annum an increase of three dollars over what it has been, dues for out-of-town members are still only four dollars per annum and that includes with it, membership to the State Association, your yearly subscription to the Journal, through whose columns we are kept in touch one with another, and eligibility to membership to the A. M. A.

We meet on the first and fifteenth of each month at the Roper Hospital where

a warm welcome awaits you at any and all of these meetings, notice of which will always be sent to you and if the subject for discussion interests you particularly you can make a special effort to come in and attend. Enclosed is an application which I hope you will immediately fill out and return in the stamped and addressed envelope to

Very truly yours,
A. J. Jersey, M. D. Sec.

In addition, programs, announcements, bulletins should be sent to non members as regularly as to members so that no physician who is eligible can be able to make the excuse that he does not know that there is such a society (And this has happened) or that he was not asked to join.

In the larger Medical centers such a task for one man would be a protean but in this State a live county secretary can not only write, but can make it a point to have a personal interview with every non member.

2ND.—THE DETAIL WORK OF HIS OFFICE

The amount of time consumed by a secretary in answering official correspondence and otherwise attending to the duties of his office will depend on whether he employs some system and order in his records or whether he is still content to let chaos rule supreme. It is a rule that admits of no exception that all correspondence of an official nature should be attended to at once, especially letters from the State Secretary. The most important attribute of the efficient secretary is his ability to answer official letters promptly and clearly. The secretary who will not reply to letters received is not only of no value but is actually detrimental to the organization since he prevents progress by his inaction and causes unnecessary work and expense to all concerned. A tardiness to reply whatever cause not only "Gums the game" (to use a slang phrase) but often times blocks all progress. The very dependent nature of the A. M. A. on the State Association and the State Association on the County Societies causes a constant stream of correspondence between the secretaries of these organizations. In addition

to other havoc wrought by neglecting an official communication from the State Secretary who in turn is writing at the solicitation of the General Secretary think of the actual monetary loss. For instance suppose each secretary neglects just one such letter or from lack of the desired information cannot at once reply necessitating a second letter to know why there is entailed a loss in postage alone of eighty dollars which plus the cost of stationery, time, etc., considerably increases this amount. Therefore, the county secretary should have at his finger tips full information concerning all physicians of his county. The card index system is most satisfactory. This specimen will show better and in less time than I can take to explain. It contains all the known information about that man and can be referred to in a moment by opening the little drawer and looking in the proper index. For those secretaries who perform the duties of treasurer as well, the reverse side of the card can most conveniently be used for a ledger (as shown.) The simplicity of this system is fully appreciated right now as all of the County Secretaries have had to recently correct proof sheets for the A. M. Directory. Those of us who had our cards up to date found it a very simple task to correct and return proofs at once. This is a miniature copy of the system used by the General Secretary of the A. M. A. concerning which the A. M. A. Bulletin for last November says "There is at present in the office of the General Secretary a large card index containing nearly Seventy thousand cards each bearing the name of a member of a County Society. These cards are arranged alphabetically, first by States and then by Counties, then by name, the members of a County Society being arranged alphabetically behind a guide which bears the name of the county, and all the cards for one State being arranged in a drawer which bears the name of the State Association. This card index is kept corrected up to date by reports received each month from the State Secretary. These reports show new members, deaths, resignations, suspensions, expulsions and removals for all of the County Societies of the state. Consequently each monthly

report received from a State Secretary should contain all changes which occurred during the preceding month in all of the County Societies of the State. As fast as these reports are received the index is corrected in accordance with them and perpetual count is kept of the membership in each State.

This index, containing, as it does, the combined reports of the fifty-two state and territorial secretaries and the 1,977 County Secretaries, is used for three principal and distinct purposes. These are as follows:

1st.—For passing on application for membership in the American Medical Association.

2nd.—For checking up the membership list of the American Medical Association for each state, periodically.

3rd.—For checking up the copy of the American Medical Directory for each state previous to the publication of a new edition."

It has not been the general practice of the County Secretary in the past but I would advocate that the State Secretary be notified of any change of membership, address or what-not concerning a member which requires change of record in the State Secretary's office as soon as such correction is necessary, or what is better a regular monthly report be mailed and not have Dr. Cheyne worm the information out of us or finally get it elsewhere. It might be well to get the State Association to print a blank for these monthly reports that they may be uniform.

3RD.—MAINTAINING MEMBERSHIP.

If all desirable men are drawn into the society and if the Secretary is an alive, active man there should be no trouble in maintaining interest in Society work. I will not go into details of how this is best done leaving it to the individuality of each secretary. There are some very pertinent suggestions in two articles appearing in the journal recently, one by Dr. Theodore Kershaw, and one by Dr. J. R. Young which might be well carried out. Judging from the programs sent me by Dr. Mary Baker the Columbia Medical Society would be a good example for us all to follow. It is gotten up

in a very neat form and contained two or three scientific topics for discussion, and what is especially to be commended is that they do not devote the entire time to silence alone. Injected into the program we sometimes see vocal and instrumental selection by members, refreshments, something to drink and something to smoke. This is most important. Men are but children of a larger growth and the old adage "all work etc." holds equally true here. Such a diversity as we see on their program is a key note to a profitable and pleasant meeting.

L ROSA H. GANTT, M. D., Spartanburg.

"The Value of Organization of the Medical Profession."

A discussion of the value of organization to the Medical Profession, in this day of Trusts, Corporations, and Associations, when the single individual counts for so little, and great results are to be had only by the organized efforts of many, seems to me to be the discussion of a proposition too patent to require much demonstration.

As the Medical Profession stands today with the national head, The American Medical Association, its State Organizations in the States of the Union, its organizations of specialists and its members of county societies, it is as an army—fighting for definite aims and purposes. Disband these organizations and the profession would be as a mob—with out leadership, without aims or purposes. Let us put the question squarely to ourselves, and to our brother physicians, under existing conditions in this country, can we hope to accomplish any great or permanent good, without organization?

The association we hope here to create is to make stronger the general organization—the army of physicians—it is an association of the minor officers. To the individual secretary—to you and to me personally—it means better acquaintance, and I trust mutual respect, more pleasant social and business relations, the prevention of envy, jealousy, sectionalism, animosity and the promotion of friendship.

The National Association is but the

aggregate of the State Associations. The State Associations but reflect the activity of the county societies.

As county secretaries we are the link between the individual physician and the State Secretary. The center of communal life of the physician in the county society, if the county society is built up and sustained we need have no fear of the prosperity of the state or national associations; after all it is the county society that furnishes "the man behind the gun," it is the heart from whence comes the life blood that nourishes the whole system.

Upon the judgment, experience and activity of the officers depends in the greatest measure, the life and prosperity of the county society, the state society, the national organization, the army of physicians.

As assistants to the Presidents, as recruiting and disbursing officers—our responsibilities are many and vital to the success of the county societies of this state. If we are prompt, patient, persistent, diplomatic, if we make an effort to arrange an inviting program, and have the meetings bright and attractive, if we strive to reach the individual physician and bring out the best that is in him, we can reap a glorious harvest from the latent knowledge and power that lies dormant in the medical men of South Carolina.

We are to meet and discuss our plans, our difficulties, to come to a fuller appreciation of our duties and responsibilities to aid and assist each other in the work before us, and to arrange to give more helpful and efficient service to the State and National Associations.

As Secretaries, organizations will mean better meetings of the county societies, better service and aid to the State associations and the State Board of Health—better doctors.

Already a number of States have realized the effectiveness of co-operative work among the county secretaries, notably—Pennsylvania, Ohio, Iowa, Illinois, Michigan, and South Carolina can well join with these that we too may hold conferences for better, more efficient work.

Speaking generally of the labor before

us, I might call to your mind that in the past decade a new world has been opened to us in Sanitation, Hygiene, Prophylactic Medicine, Surgery, Bacteriology, and I might add in every department of medicine, and if the county societies fail to appreciate these truths, and if the individual physicians fail to learn, and promulgate to the laity these new truths, we will fall short of our duty to ourselves and the profession.

The fight against Tuberculosis, Typhoid, Malaria, Pellagra, and a hundred enemies to health is with us as leaders of medical thought, and knowers of medical truth. Will the doctors of South Carolina sit still and let the preachers, the teachers, the civic organizations of the State, rob them of their birthright and take the lead in handling these problems in the light of the new knowledge that has come to mankind?

In my own special line, it is a struggle to keep abreast with this new knowledge, disseminated through the medium of our national organization. The physician who is content to lull himself to sleep secure in the income from his chronic cases, will sooner or later wake to the realization that he is versed only in unused medical lore.

The fight for our professional integrity, should appeal to every self respecting physician, that we may protect the profession from "quackery," and the various "isms" that would use the profession for gain, or would lower us from a profession to a trade. The term "Doctor" should mean more than a vendor of medicine, or a charlatan plying upon the ignorance, the misfortune or superstitions of mankind.

The Patent Medicine and Nostrum evil is to be met squarely and fought to the bitter end.

The fight for a National Board of Health, for proper medical legislation in the Nation, State and City, protection of our streams and water courses, many matters of medical legislation are for you with the right of suffrage. Medical supervision of the young, medical education, education on sanitation and hygiene, the spread of medical knowledge of truth.

Above all, the education of the pub-

lic to the truth that even in this age of commercialism the mission of the physician is not gain, but to secure a self-respecting support in the healing and bettering of mankind.

Is there any question but that we can best meet the problems before us by organization—organized work—the raising of the profession of medicine rests with the physician—individually organized.

There is work—individual work—organized work for all.

DR. JOHN I. BARRON gave a little talk on *“Suggestions as to the Organized Work of the County Societies for the Coming Year,”*

I think the main duty of the Secretary is to try to get each physician as a member of the County Society. Since I have been Secretary, which has only been a few months, we have organized this card-index system. It seems almost impossible to get some of the members to meet with us. I think we should feel that each member is at liberty to read a paper at any time, or discuss the papers that are read. That will go a long way toward getting the members more friendly towards each other. Some times it is hard to get the one down on the program, to read his paper. We have adopted the method of never letting them off, and continue them on, and catch them sometimes, but to catch them is a difficult feat.

I think the main object of our Society is to get up these papers in such a system and so discuss them that it will be of benefit to us as a whole.

THE PRESIDENT:—Possibly we had better turn this into a general “experience meeting,” as the set discussions are over; but possibly we had better permanently organize first. It would be proper, I think, to adopt some constitution, and appoint a Committee, composed of, possibly, chairman, vice-chairman, and secretary and Treasurer.

Constitution and By-Laws for the South Carolina Society of Medical Secretaries Adopted.

Constitution and By-Laws for the South Carolina Society of Medical Secretaries.

CONSTITUTION

Article I. Name.

This Society shall be known as the South Carolina Society of Medical Secretaries.

Article II. Objects.

The objects of this Society are to cultivate a closer relationship between the component County Societies to establish improved and more uniform methods of conducting the meetings; to devise and develop the best means of creating and holding interest in the work, and for increasing membership and by cooperating with the officers of the State Society to promote the general welfare of the organized profession of the State.

Article III. Membership.

Members shall be limited to the Secretaries and Councilors of county, State and District Medical Societies.

Article IV. Annual Meeting.

The annual meeting shall be held each year on the first day of the annual meeting of the South Carolina Medical Association, the hour and place to be designated by the Secretary of the Society of the County in which the meeting is held, with the approval of the executive committee.

Article V. Special Meetings.

Special Meetings may be called at any time by the Chairman, upon written application signed by five members.

Article VI. Officers.

The officers of this Society shall be: a Chairman, vice-Chairman, Secretary and Treasurer, and an executive committee composed of five members, of which board the Chairman and Secretary shall be members, ex-officio.

Article VII. Amendments.

Any article of this Constitution may be amended at any annual session, provided that three-fourths of the members present favor it.

BY-LAWS.**Article I. Membership.**

Any physician, who holds the office of Councilor or of Secretary in a County, State or District Medical Society, is entitled to membership so long as he or she holds such office. Should he or she resign, be removed from office or be succeeded in office, his or her membership in this Society will cease and his, or her, successor will be come a member in his, or her, stead.

Sec. 2. The Secretary of this Society must be notified promptly by County Societies when new Secretaries are installed.

Article II. Duties of Officers

The chairman shall preside at all meetings, and perform such other duties as the welfare of the Society may demand. The vice-Chairman shall assist the Chairman, and one shall preside in his, or her, absence, or at his, or her, request. The Secretary and Treasurer shall keep a record of the meetings, conduct the correspondence, and perform such other duties as may be required, keeping in close touch with the Secretary of the State Medical Society in all matters concerning medical organization.

Article III. Election of Officers.

The officers shall be elected by ballot at the annual meeting, and shall hold their respective offices until their successors have been duly elected and installed.

Article IV. Dues and Assessments

No dues shall be paid in this Society, but an assessment to meet expenses may be levied upon the members, not to exceed one dollar each, in any year, after such assessment has been approved by the executive committee.

Article V.

No section in these by-laws shall be considered effective if in conflict with the Constitution and By-Laws of the State Association.

Article VI. Amendments.

These by-laws may be amended and supplemented at any meeting, by a three-fourths vote of the members present and voting.

This Constitution was read by the Secretary, and Dr. J. L. Gambrell moved that "these By-Laws be adopted." The President declared discussion upon this point to be in order, and desired to know if anyone wanted to ask any questions in regard to the Constitution. There was no discussion. The motion of Dr. Gambrell, moving the adoption of the Missouri Secretaries' By-Laws was then put to the body, and was carried unanimously. Dr. A. J. Jersey, (being one of the County secretaries, as required by the Constitution just adopted,) was nominated for Chairman, by the Secretary, and elected. Dr. Gambrell nominated Dr. Mary Baker, of Columbia, as vice-chairman. Nomination seconded by Dr. Mayer, and resulted in election. Dr. Rosa L. Gant was elected Secretary-Treasurer.

DR. A. J. JERVY takes the chair.

"I wish to say that I feel very greatly honored," said Dr. Jersey, "but I feel unworthy of this task. I will do the best I can, however, to keep the Secretaries together, and co-operate with Dr. Cheyne."

DR. CHEYNE outlines briefly plan for securing names of practicing physicians in the state, non-affiliated with the county societies.

I would like to say just one thing along the lines of which you have just spoken, Mr. Chairman. One thing my office is most deficient in: the list of the doctors practicing legally in the State, and non-affiliated with the county societies. It is difficult to get them. Sometimes the only way is to have the Secretary go to the court house. He knows the man, and if they are legally registered, he can get the college, the year of graduation, and everything. If the Secretaries who are here will send me that information in regard to your county, and get all the others to do it, it will make my records so much more complete. We have a good registry roll to start with, from this April meeting. That is one of the points I would like for you first to go to work on.

DR. SALLEY stated that he thought possibly a number of them had been wait-

ing for the blanks, (a copy of which appears with these minutes.)

DR. CHEYNE: In 1905 a complete card index system was sent out to every county society, and in that were these cards, and since that, upon request, they have been sent. They were shipped to Orangeburg also.

THE PRESIDENT: While we have some thirty-eight or forty secretaries in the State, there are only about one dozen here, and I think it would be well to appoint a committee to endeavor to get the active co-operation of the absent ones.

MOTION BY DR. MAYER.

That "The Executive Committee be instructed to enlist these men."

EXECUTIVE COMMITTEE OF THREE APPOINTED FOR CURRENT YEAR.

Upon motion of Dr. Cheyne, Drs. Gambrell, Burdell and Barron were appointed as committee for this year.

CHAIRMAN: If every county society would adopt the same system in regard to these blanks, and if we would all send in the same monthly report, it would give us some system to go on.

Dr. Cheyne stated that he copied the card report system from another state, and had ordered a hundred cards. That if he had the money, he would adopt the plan of the American Medical Association, namely: have these reports sent out with a stamp enclosed for the secretary to make him the return from his office every month.

The chairman desired to know if it was possible for the state to stand that expense, and Dr. Mayer replied that he didn't think it was; that it would take twelve months, anyway, to get their organization in order.

The chairman thought it would be a good thing if the state association could be prevailed upon to furnish them, because the matter, if left to the individual counties, a great many would be slow in attending to it.

Dr. Cheyne said there was a tremendous supply of the cards sent out about three years ago.

Dr. Mayer thought it would be a good thing to have the card printed in the Journal every month, and then each secretary could fill it in.

The president didn't think that very practical, because, if that attached sheet should be sent out, the expense would be thrown on the Journal, and the paper must be different from the Journal paper; it must be glazed, and that would necessitate having a thousand or more printed on that special paper.

Dr. Mayer replied that he thought it was better to send them out every month, because the secretary loses them, and if the secretary knows he is going to have this blank, he thought it would be better to have a page in the Journal and let the Secretary tear it out and mail it, like people do advertisements, etc., and have it printed every month.

Dr. J. T. Taylor thought an objection to that plan would be the irregular issuance of the Journal.

Dr. Mayer did not think the variation of a week or so would matter.

Dr. Taylor, however, was of the opinion that the expense would be too great, to send the card out in the Journal. That there were only forty societies, and therefore, if a vast number should be printed, it would only take 80c. a month.

After a good deal of further discussion the chairman stated that they would leave the matter to be passed upon by the Executive Committee. The meeting was then adjourned until the following morning at 9.30.

WEDNESDAY MORNING, APRIL 21.

Continuation of Meeting of County Secretaries.

Meeting called to order by the chairman, Dr. Jervy.

DR. JERVEY stated that in addition to the work of yesterday he desired the members to consider the matter of an assessment of dues for small expenses of the Secretary's office.

Minutes of first meeting read by Dr. Gantt, Secretary.

Discussion called for upon Constitution and By-Laws.

DR. QUATTLEBAUM did not think it necessary to fix the dues on the society at

all. They had no authority to demand that the county society should pay it. That personally, he didn't entertain much doubt as to his ability to get his dues out of his society.

DR. BURDELL stated that "we adopted the constitution on yesterday" and made the motion that "Each Secretary of the County Societies in the State be assessed one dollar for the year 1909." That that would finish up the work of this year, until the next meeting, and that it be left to the discretion of that secretary where he shall get that dollar. That if the secretary be "a good one", he will get the dues out of the society. That the secretary can be assessed, but not the society.

DR. GANTT thought the assessment could be lowered, as there were forty secretaries, and every secretary was supposed to be a member.

DR. BURDELL explained his object in making the above motion as follows: "To get a surplus in the treasury to run us two or three years. We will not have to be bothered with finances for some years to come. My object is to levy another assessment, when this fund is exhausted, and the matter of one dollar, I think, can be gotten up during the year; and one or two societies, you will find will pay this month, and one or two next, and so on, in proportion to the zeal with which the secretary and treasurer keeps after them for these dues, and we can go on existing on this assessment until that gives out."

CHAIRMAN: We have a right to change that by three-fourths vote, and if there are any objections, we would like to hear them.

DR. BURDELL didn't think it hurt to have a surplus.

DR. MARY BAKER: You cannot compel them to be members. The constitution states they may be members.

Chairman concurred with Dr. Baker.

DR. WAGNERS If all the secretaries of the state are not members, one dollar isn't enough.

DR. JERVEY thought every secretary sufficiently interested to join.

DR. WAGNERS You will have to have your constitution and by-laws printed and that will cost ten dollars.

CHAIRMAN: We had better get our secretary to write to all the secretaries who have not been present at this meeting, put before them the objects of the meeting and ask them to join right away, so as to co-operate with us. I put that in the form of a motion.

DR. SALLY wanted to know if "it is just for this year?"

CHAIRMAN: At our next meeting that matter will come up. Don't think we will have to make another assessment. The Constitution provides that that assessment should be endorsed by the Executive Committee, before it is voted on.

DR. GAMBRELL, in response to the Chairman's request that monthly report be made, stated that the body was not in a position to make any report, other than "we adopt the blank already arranged, and that we instruct the secretaries that are here, and those that are absent to fill out this blank for Dr. Cheyne and send it in before we have a great number of them printed, or anything else done with them. As soon as we try his blank, and try other forms, if necessary, we will then make arrangements. I put that in motion: That the Secretaries be requested to use the blanks that Dr. Cheyne will send them in a few days, and return them to him at once."

CHAIRMAN: Dr. Cheyne said he had only one hundred. That will be enough for two months.

DR. GAMBRELL: It is our intention to take that blank up as soon as we can see a copy of it, and arrange a suitable blank to be used. We are very much in the dark as to what that blank contains, I therefore make the motion that "We be allowed two months in which to decide upon these blanks."

CHAIRMAN: It is moved that, for the present, the one hundred blanks provid-

ed by Dr. Cheyne shall be used. At the end of that time the executive committee will adopt a blank and have the same printed for the use of the secretaries."

DR. CARPENTER stated that he was Secretary of a District organization of six counties, and would like to know if he was eligible. That he thought his district organization the only one in the State, and that it was thriving. Chairman assured him that he was eligible, as well as all other district councillors.

DR. SALLEY stated that he noticed Dr. Cheyne had a blank for a prospective member to fill in. That that part of the business had been very irregularly done. The way they had been doing gave the Secretary no information. Dr. Cheyne's card covered the ground, and it would be a good idea to have Dr. Cheyne have those blanks printed and let the county societies pay for the number they want.

That is the constitution, but it is not observed. "We have no specified form," Dr. Salley continued; "I do not think any of them have. It is small expense to have those blanks printed and then we can get the information that Dr. Cheyne wants and give you a record of the county secretary's office."

DR. BARRON thought if the secretaries would write the Secretary of the State Association, he would send them. That he had sent him (Dr. Barron), about two hundred. Dr. Wagner replied that those blanks were in the boxes sent to the county secretaries, and the Chairman said he understood Dr. Cheyne could supply these, if they would write to him for them.

DR. BURDELL asked if the President and Secretary were not ex-officio members of this Committee. Dr. Gantt replied that the officers were the Chairman, Vice-Chairman, Secretary and Executive Committee, composed of five members, of which the Secretary and Treasurer are members ex-officio.

MOTION BY DR. BURDELL that "The Executive Committee be instructed to try to arrange an itinerary for Dr. McCormick next year," and further, that

"Dr. McCormick's expenses are paid by the American Medical Association, and it will cost the Association nothing except the small expense of advertising him in the counties. I think the Executive Committee should arrange that."

DR. QUATTLEBAUM wasn't sure that the Association would pay for his work. He understood the Doctor was doing State work. Dr. Gantt thought he preferred coming to the State while the Legislature was in session, so that he could address that body also. That he would have been present at this meeting, but was out in Nebraska, and couldn't come. If he could come while the Legislature was in session, and then go to the different counties, he was sure he could be secured.

MOTION BY DR. BURDELL that "We endeavor to get Dr. McCormick to visit this State, and while here, to address the societies, the subject to be 'Organization.'

DR. GAMBRELL thought, "As this is a subordinate body, and the Councillors have that matter in charge, they are the ones to look after it. The object is, that we arrange for some speaker to address us at our next meeting, on the subject of the Secretary's Work, and How to make County Societies Successful. I think if we take this step now, we will interfere with the plans of the Councillors, and do not think we should tackle as big a thing as the securing of Dr. McCormick.

DR. GAMBRELL then said he would withdraw his motion, but thought it would be very well to suggest to the members that they do try to secure some one who is well up on the Secretary's work of the county societies to make a talk at the next meeting, and that the next meeting be held the day preceding the State Association meeting, as this one had been, at the house of Delegates, or at some intermission.

DR. SALLEY stated his experience had been, if you want anything done, you have to do it yourself, and they wanted this work done by their secretaries. An

outside man could tell them what he did at his place, but he didn't know local conditions; and if a man came in to do it one time, they would want him another time, and they ought to stimulate their secretaries all they could, and not depend on anybody.

MOTION BY DR. QUATTLEBAUM that "The Executive Committee shall be instructed to appoint one or more, who shall read papers on 'Work Pertaining to this organization.'" Motion carried.

MOTION BY DR. MARY BAKER that "The Executive Committee shall be given at least a month to appoint the members to read papers."

Seconded by Dr. Gambrell

DOCTORS HINES, SALLEY AND YOUNG requested to prepare papers for the next meeting on the Secretary's Work, and the Secretary asked to notify Dr. Young, who was absent.

The point was raised by Dr. Salley that most of the societies elected new secretaries in January. The Chairman stated that the new secretary, in that event, would succeed the old one in the Society.

DR. SALLEY wanted to know what would happen if the old secretary went out—was not elected to succeed himself. Dr. Gambrell, however, expressed the opinion that a man did not necessarily have to be a secretary, in order to read a paper; that such a one would be invited guest of the body. Dr. Carpenter thought it decidedly the better plan, for the original appointee to read his paper.

DR. BARRON desired to know if they didn't think the time of the next meeting should be set for the second day, when more men were present, but the Chairman stated that would involve a change in the constitution.

"Dr. CARPENTER, at this juncture moved "That the By-Laws be altered, so that the time of annual meeting shall be the morning of the first day of the general session, instead of the day before the first day of the general session, and at any time afterwards that we can fit in a meeting, if necessary." Motion carried.

THE CHAIRMAN stated he thought it would be an excellent idea for all those present to pay their dues to the Secretary and Treasurer, which was done, and the meeting was then declared adjourned, sine die.

THOSE PRESENT

F. M. Dwight, Councilor.
 J. T. Taylor, Councilor.
 W. B. Cox, Councilor.
 F. H. McLeod, Councilor.
 O. B. Mayer, Councilor.
 I. B. Wagner, Chesterfield.
 John I. Barron, York.
 E. T. Kelley, Williamsburg.
 A. J. Jervey, Charleston.
 D. D. Salley, Orangeburg.
 L. Rosa H. Gantt, Spartanburg.
 C. C. Gambrell, Abbeville Co. Med. Society.
 W. J. Burdell, Kershaw Med. Society.
 Mary R. Baker Med. Society of Columbia; Richland Co. Med. Society.
 Walter Cheyne,
 S. C. Baker.
 E. R. Wilson, Sumter.
 Mays, Marlboro.
 Hines, Seneca.
 Quattlebaum, Aiken.
 E. W. Carpenter, Greenville.

In the *University of Pennsylvania Medical Bulletin* for May, 1908, DAVIS draws the following conclusions:

In all cases of eclampsia there is a marked elevation of blood pressure is noted there is also seen a fall in the amount of albumin.

The most efficient agencies for reducing blood-pressure have been found to be vapor baths, puncture of the membranes, nitro-glycerin, and venesection.

The most successful factors in the treatment of eclampsia have been found to be remedies which lower blood-pressure and agencies which eliminate toxins.

It is well to bear in mind that those who have an idiosyncrasy against iodine and the alkaline iodides are sometimes affected more by small than by large doses. Also that some people have an idiosyncrasy against small doses, but not against large ones.—*Critic and Guide*

Secretaries Department

Dr. F. H. McLeod, Editor,
Florence, S. C.

My dear Doctor:—At the last meeting of the Council I had to report that there was a great discrepancy as to the members of the Association in the number reported to the Secretary of the Association, and in the number who had paid dues to the Treasurer of the Association.

At the time of my reporting this to the Council, there was a discrepancy of 110 members or \$330.00 due to the Association.

Now this is absolutely wrong; as it places the Association in a very unbusinesslike position, it makes trouble as to who are members and who are not legally, for no member can be a legal member unless he has paid his dues, and it puts upon the Secretary, who has reported to the Treasurer certain names, the obligation that they see that this entire membership is paid for to the Treasurer. I want every Secretary and Treasurer of any County Society to compare notes at once and whoever is derelict, upon being requested to pay, must be dropped and the State Secretary so notified. The Secretary of the State Association will be out of his office most of the month of June, but all communications will be attended to upon his return as speedily as possible.

There are many Secretaries who have not returned the blank sent out to them, as proposed at the County Secretary's meeting at Summerville. This blank should be immediately returned. It has been paid for by the State Association and certainly the Secretary has the duty placed upon him to at least fill this out and send in to the Secretary's office by putting a two cents stamp thereon.

I hope Mr. Editor, that I may make monthly use of your columns to express to the counties, and especially to the county secretaries my desires along certain lines to improve the State Medical Association. It has happened in my term of office to see the membership double, a

matter of which I am very proud and for which I claim considerable credit. But, I am not satisfied with that. I am now after the non-members and I am going to try to get these non-members in the state allied with the regular profession, and then we shall see results, such as we have never seen.

Very truly yours,
WALTER CHEYNE,
Secretary S. C. Med. Asso.

Sumter, S. C., June 1, 1909.

Charleston, S. C., June 7th, 1909.
Notice elsewhere is made of the organization of a society of County Secretaries, the object of which as set forth in our Constitution are "To cultivate a closer relationship between the competent County Secretaries and establish improved and more uniform methods for conducting meetings, to devise and develop the best means of creating and holding interest in the work and for increasing membership, and by co-operating with officers of the State Association to promote general welfare of the organized profession of the State."

To obtain these objects implies much work and a concerted action, Doctors Bakers and Cheyne, President and Secretary of the State Association, very kindly assisted us in organizing and did much to make our initial meeting a success. The attendance here was not all that it should have been but those present were enthusiastic and will I believe contribute their share towards usefulness of our Society.

Since our meeting our efforts have been directed to the signing of every eligible on our roll. These consist of "The Secretaries and Counselors of the County, State and District Medical Society." What success have we thus far met with? Practically none at all. Our energetic Secretary, Dr. Rosa Gantt writes me that she has received only four replies to forty-eight personal letters. Now this is most discouraging and through the columns of the Journal, I wish to

make an appeal to all of you who should be with us in this work to join at once. Michigan, Pennsylvania and other States have such organizations and from literature they have sent us are doing a great work for their County and State Association and for the profession. Secretary of the State Association can testify to a listlessness and apathy among our secretaries, and when we remember the very dependent relations of the State to the County Society we can appreciate the embarrassment thrust upon the State

Secretary often times by this apathy. Among the useful reforms we instituted, was the adoption of a blank for a monthly report to the State Secretary, the adoption of a uniform card index system and others, but before we can accomplish much of permanent good our ranks must be fully mustered. In the next issue of this Journal when our Secretary publishes the list of members see to it that your name appears.

ALLEN J. JERVEY, M. D.,
Chairman Society Medical Secretaries.

County Society Reports

Graniteville, S. C., June 8, 1909.

The Editor of the Journal,

Florence, S. C.

Dear Doctor:—The regular monthly meeting of the Aiken County Medical Society was held on the first Monday in June. Several of our active members were unavoidably absent for various reasons. This society is quite active and the attendance and enthusiasm compares favorably with probably any society in the state.

A suggestion made at a previous meeting by Dr. Croft was acted upon at this meeting. His plan is to have the several societies in his councilor district meet alternately with every other component society of that district. His idea is to bring together the medical men of his district, increasing the fraternal spirit and interest in the profession. This is a capital plan and a laudable purpose, and seemingly quite feasible. The secretary was instructed to communicate with the other societies in this district and if the scheme meets their approval to invite them to meet with us at Aiken the first Monday in October. It is sincerely hoped that the suggestion will be heartily endorsed by the other societies in the district and that we may inaugurate the campaign for a higher toned and a more united profession with a rousing

meeting.

With best wishes for the new editor and his associates, I beg to remain,

Fraternally yours,

T. A. QUATTLEBAUM, M.D.,
Secretary.

Charleston, S. C., May, 1909.
Our society was presented with a very excellent paper on Nephrolithiasis by Dr. Manning Simons on the 15th of May with the full report of a case.

A case of unusual interest was reported by Dr. Buist. A young white lad was bitten on the face by a supposedly rabid dog. Wound was cauterized with nitrate of silver and in twenty-four hours the patient was under the pasteur treatment in Atlanta. The report from the head of the dog was positive. In twenty one days the boy was returned to parents "cured". Within a few days after his return well marked symptoms of the disease broke out and he died.

Dr. Baker reported a case of strangulated Inguinal hernia treated along the lines of conservative surgery with recovery. On cutting down he found a loop of gangrenous bowel. The patient, an elderly man being unable to stand a resection and Anastomosis at that time, he sewed the margins of healthy gut to wound. In seven days this had sloughed

and a double fistulous opening presented in the wound. His condition still would not permit of an extensive operation, so he inserted the blades of a stout pair of forceps in respective opening of gut and passing them up for the full length of blades, about three and one-half inches, clamped them. In six or seven days the forceps, holding in their bite the two thicknesses of intestinal wall came away and the anastomosis was established. In a short time the fistulous opening closed and cure was complete.

Dr. J. C. Waring of McClellanville was elected to membership at the last meeting.

ALLEN J. JERVY, M. D.,
Secretary.

Spartanburg, S. C.

At the regular monthly meeting of the Spartanburg County Medical Society held May 28, seventeen members and five visitors, some of them prospective members, present. Several cases of Pelagra were reported and Dr. Black suggested that the local board of health be notified of this fact that an effort might be made to stamp out the disease in this community, but others present thought it best for the physicians to warn the people among whom they practice, against the use of the products of damaged corn.

Dr. Doan, who was to have read a paper on Puerperal Eclampsia, was absent but this subject was very generally discussed by a number of those present, one of whom uses the heroic dose of $1\frac{1}{2}$ grs. Morphine hypodermatically.

Dr. H. R. Black read a paper on Tuberculosis of Head of Colon, and report of a case. Dr. Dean who was appointed to discuss this paper was absent so Dr. Williams was called upon.

A committee of five was appointed to assist the county chairman in organizing an anti-tuberculosis league.

Drs. Oscar Nettles and R. E. Thompson made application for membership which will be acted upon by the board of censors in the regular manner.

L. ROSA H. GANTT,
Secretary.

Orangeburg, S. C., June 16, 1909.

Orangeburg-Calhoun Medical Society met at St. Matthews June 15th at 12 a. m. with 8 members and 3 visitors present. We were favored with 3 very valuable papers, as follows:

Some Reflections on Practical Obstetrics—by Dr. F. H. Dreher, St. Matthews
Some of the Functional Neuroses with Report of a Case of Hysterical Amourou-sis.—by Dr. S. C. Sheurt, Orangeburg,
Look Worm—by Dr. T. H. Symmes, Fort Motte.

These papers were all very fully and ably discussed. All present joining in the discussions and making the meeting one of the best and most instructive we have ever held. The St. Matthews physicians exerted themselves to make the meeting a success, and were all present thus proving that we can attend our Society meetings if we really try, for I know these men to be as busy as the average. After holding a morning session, Society adjourned to enjoy dinner as guests of the local members and reconvened at 3 p. m. for an afternoon session, after which adjournment was taken to meet at Orangeburg in July. Applications from two physicians for membership were presented.

D. D. SALLEY,
Secretary.

Abbeville, S. C., May 8th, 1909.

The Abbeville County Medical Society held its regular monthly meeting in Dr. G. A. Neuffers office Friday, May 7. This was one of the best attended meetings we have had in several months, quite a number of visitors being present. We had with us, by invitation, Dr. E. W. Carpenter of Greenville, S. C. who discussed Pelagra and demonstrated the use of the Bronchocystoscope. This demonstration was very interesting and was much appreciated by all those present.

At our next meeting we are to have three papers, one by a dentist on a subject that will be of interest to both dentist and doctor.

Dr. G. A. Neuffer had one of his cases of Pelagra to come before the society at this meeting and it was very interesting to those who had never had an oppor-

tunity to see one. It is my opinion that most of our medical men are convinced that we have Pelagra in this county.

Dr. Cheyne of Sumter, S. C. gave his lecture on Tuberculosis in the opera house last Thursday night before the Abbeville County Anti-Tuberculosis Society and citizens. The house was well filled and every one present was impressed with the importance of this subject and I feel sure his talk will do much good. The Abbeville Society has been actively at work for about three months now and many improvements have been made.

C. C. Gambrell,
Secretary.

Florence, S. C., June, 1909

The regular meeting of the Florence County Medical Society was held in the City Hall on Monday, June 7, with Dr. F. H. McLeod, presiding.

Dr. B. G. Gregg read a very able and instructive paper on Gastro-Intestinal Diseases of Children, and its Treatment. This subject was enjoyed and discussed by the members.

It was decided that at the next regular meeting the subject for discussion would be, The Education of the Laity on the Prevention of Tuberculosis.

St. George, S. C., June, 1909.

The regular monthly meeting of the Dorchester County Medical Association was held at St. George on Monday, June 7th with the average attendance, which out of membership of 22 is about 7 or 8: viz: Drs. Gilmore, A. R. Johnston, J. B. Johnston, Judy, Mellard, Shuler, and Simons.

This meeting was both interesting and profitable, two excellent papers being read, "Puerperal Eclampsia" by Dr. J. L. B. Gilmore, and "Atropine, Its Therapeutic Uses," by Dr. F. Julian Carroll, who, however, was unable to attend. The subjects covered a condition frequently met with and a drug extensively used by the general practitioner, and therefore were of unusual interest. Discussion was only too short on account of the meeting being limited by the "down train" being on time.

The next meeting will be held in Sum-

merville on July 5th at 8 p. m. Dr. Judy being essayist with Drs. H. B. Lee, A. R. Johnston, and J. S. Wimberly to discuss his paper, Dr. Shuler alternates with Mrs. Carroll, Harley, and Wells to discuss. Dr. J. D. Connor being next alphabetically will prepare the paper on a drug

EDMUND W. SIMONS, M. D.
Secretary.

Seneca, S. C. June 8, 1908.

The Oconee County Medical Society met at Walhalla on May 27th. The meeting proved to be one of the most interesting of the year. Dr. C. M. Walker read a paper on Pellagra, reporting several cases, one of which dates back several years.

Cases of Pelagra were reported by Drs. J. S. Stribling and J. W. Bell.

The subject of Snake Bite by Dr. E. A. Hines brought out considerable discussion by all the members present as well as a number of cases to report.

Dr. W. A. Strickland gave an excellent description of a case of Glioma, which, being somewhat rare in this section at least was listened to with pleasure.

Dr. J. B. Stribbling rendered a report of his stewardship as our representative to the state association.

Dr. C. M. Walker was elected as essayist to present the subject of Pelagra at the 4th District Medical Association which meets at Easley in November.

We have adopted the attractive folder program which the Spartanburg Society issues and find the idea works well.

The Society enjoyed a good dinner at the Walhalla Hotel and adjourned to meet at Westminster July 28th.

E. A. Hines, M. D.,
Secretary.

Through all the anti-alcohol talk of the present day, I can still hear the words of my brave, old teacher—the greatest surgeon of his day—who, when leaving a case of pneumonia or apparently hopeless sepsis, would add as a final admonition "and the whiskey is not to be measured."—GEO. B. TWITCHELL, in *N. Y. Med. Journal* (May 22).

Editorial

F. H. McLEOD, Editor,

J. G. McMaster, Asst. Editor.

SALUTATORY

We thank the Council of the South Carolina Medical Association for the compliment of election to the Editorship of the Journal a compliment of which we are proud.

In accepting this position of honor we do so fully cognizant, we trust, of the duty and responsibility attendant upon the same. Were it not for the faith that we have in our friends—their offer of help and expressions of good will, as well as the new Secretaries Society, which we feel encouraged to believe will make it possible to chronicle, each month, matters of personal interest to the profession as well as definite monthly reports of medical thought and progress, we would not have undertaken this work.

The Journal has been well received at home and abroad—comments most favorable having been made by outsiders, and we have all profited by the many valuable contributions to medicine and surgery in its pages. We have learned to look for its monthly visits with ever increasing pleasure.

We are indebted to the Journal for its vigorous fight for higher medical education and laws, and it led the fight in the United States against the Life Insurance Companies for a fair fee for medical examinations.

To-day our statutory laws on medical matters will compare favorably with the best in this country, and in the Insurance matter the victory was glorious.

The Journal has become a part of our State Medical Association a cohesive influence and its existence is more than jus-

tified and a proposition to revert to transactions would not for a moment be entertained.

It is our desire so to conduct the affairs of the Journal that its influence will not wane.

This is your Journal. The Councilors of the South Carolina Medical Association are Associate Editors and the members are the contributing Editors. We all have a duty. We must have your support.

If the Journal is to accomplish most largely for the profession it must be, not only by reason of scientific editorials, but with the spontenity which all should readily and gladly give for the good of all.

Indulgence of our readers is asked at all times, but especially in this first issue. The experience of Editor being new and strange to us.

SOCIETY OF MEDICAL SECRETARIES

This new department of our State Medical Association is along the line of progress and presages much good.

The minutes of the first meeting are published in full in this issue of the Journal, and we hope that it will prove of interest to all. Read it. The live secretary is the life of the Society. Let every county secretary join.

A department of the Journal has been given this Society, and will be in charge of Dr. Allen J. Jersey, of Charleston, Chairman of the Society of Secretaries.

THE MEMBERSHIP LIST

We publish this month, list of members of the South Carolina Medical Associa-

toin furnished us by Secretary Cheyne, Secretaries will please make any corrections and notify us and Secretary Cheyne, of Sumter. This is the mailing list of the Journal, and to those only is the Journal sent. If you do not get the Journal, see your Secretary.

OUR LABORATORY.

The State Laboratory, in Columbia, under the direction of the State Board of Health and in charge of Dr. F. A. Coward, will soon be open, as previously announced.

This is a long cherished idea, and we rejoice that this worthy undertaking has at last begun. Its object is to make bacteria tests: tuberculosis, typhoid, diphtheria, etc. without cost, for any physician in the state.

It is also proposed to conduct a Pasteur Institute for the treatment of rabies, and this will also be free to any citizen

of South Carolina.

Dr. Williams, Secretary of the Board of Heath, will write directions for preparing specimens to be sent to the Laboratory, and this will appear in the July Journal.

DR. ROBT. WILSON JR.

At the recent meeting of the American Medical Association, Dr. Robt. Wilson, Jr., of Chareston, was unanimously elected first vice president of that body. This is indeed a high and well bestowed honor on this worthy South Carolinian.

This is the first recognition that the South Carolina profession has had in many years, and it is especially important as President Gorges will be out of the country for a good part of the year, and the vice-president will be the acting President.

Our congratulations.

Correspondence

Dr. F. H. McLeod, Editor

Journal of the S. C. M. A.

Florence, S. C.

Dear Doctor:—Would you please insert the following notice in the next issue of the Journal:

"The buttons of the Association ordered at the last Meeting of the Council have been completed and are in possession of the Treasurer, who will gladly furnish one of these buttons to every member of the Association, for the sum of One Dollar and twenty-five cents net. These buttons have had to be ordered in large quantities and to get this low price we cannot incur the extra expense or stamps for registration. Therefore, persons of exchange for personal checks, any member ordering one of these buttons by mail, will please include in his personal check the sum of twenty cents

(20c) more than the price of the buttons. In other words, all members expecting buttons to be forwarded by mail, will please send a check for one dollar and forty-five cents (\$1.45). They will be delivered, however, in person at One Dollar and twenty-five cents (\$1.25) each. These buttons are only furnished to members who have paid their annual dues in full and any member who desires one of these buttons, will please state the County Society of which he is a member."

Yours very truly,

C. P. Aimar, M. D.

Treasurer S. C. M. A.
Charleston, S. C., June 8, 1909.

Bennettsville, June 14, 1909.

Dr. F. H. McLeod, Editor Journal,
Florence, S. C.

Dear Doctor:—We wish to inform our friends and other members of the association, through your columns, that

our names have appeared as connected intimately with the Bennettsville Sanitarium, (treating the drug and liquor habit.) As soon as we found out we had been elected directors, we tendered

our resignations and they were accepted, thereby severing our connection with the said institution.

Signed Chas. R. May, M. D.
 W. J. Crosland, M. D.

Personal

The condition of Dr. James Evans, of Florence does not improve.

Dr. Grigsby, of Blaney, has been ill with typhoid fever in the Columbia hospital for the past few weeks.

Dr. E. P. Derrick, of Lexington, who has been ill in the Columbia hospital, has gone to Glenn Springs.

Dr. Wilmot B. Allen, of New York City, visited his father, Jas. Allen, of Florence, during the month.

Dr. J. W. Jersey, of Greenville, attended the American Laryngologists and the American Medical Association meetings.

Dr. S. W. Paige, of Anderson, has retired from general practice and will hereafter devote his time to General Surgery.

Dr. C. Fred Williams of Columbia, attended the conference of the National Board of Heath, in Washington, and read a paper on Pellagra.

Dr. Mary R. Baker, of Columbia, has retired from general practice, and will hereafter devote her time to Bacteriol-

ogy, Pathology, and Clinical Microscopy.

Dr. Thomas C. Austin, son of Dr. W. H. Austin, of Greenville Co., a recent graduate of Tulane University, has been appointed Lieutenant Surgeon in the Medical reserve corps U. S. Army, and will be stationed at Jackson Barracks, New Orleans.

Dr. Corbett, the member from Kershaw of the Standing Committee on Tuberculosis, of the State Association, delivered a lecture to the colored people of Camden on Tuberculosis. The lecture was largely attended and seemed to be enjoyed, and no doubt did much good.

The following attended the meeting of the American Medical Association at Atlantic City.

Dr. John Lunny, Darlington; LeGrand Guerry, William Weston, C. F. Williams Columbia; H. P. Jackson, Robt. Wilson, Jr., Robert S. Cathcart, A. E. Baker, Charleston, G. DeFoix Wilson, B. B. Steedley, Spartanburg, Walter Cheyne, Archie China, Sumter; J. B. Earle, J. W. Jersey, Greenville; J. H. Hamilton, Union; H. E. McConnell, Chester.

Book Reviews

VACCINE AND SERUM THERAPY—Including a study of Infections, Theories of Immunity, Opsonins and the Opsonic Index. By *Edwin Henry Schorer, B. S., M. D.*, Assistant Professor of Parasitology and Hygiene, University of Missouri, etc. Illustrated. St. Louis, C. V. Mosby Co.

THORTON'S POCKET MEDICAL FORMULARY.—New (9th) edition. Containing about 2,000 prescriptions, with indications for their use. In one leather-bound volume. Price \$1.50 net. *Lea & Febiger, Publishers, Philadelphia and New York, 1909.*

MEDICAL AND MINOR SURGICAL DISEASES OF WOMEN.—By *Samuel Lile, M. D., Surgeon in chief to St. Andrew's Home, Lynchburg, Va., etc., etc.* Illustrated. *Baltimore Southern Medical Publishing Company.*

HAND BOOK OF DISEASES OF THE RECTUM—By *Louis J. Hirschman, M. D., Detroit, Michigan.* Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine, etc., etc. With one hundred and forty-seven illustrations, mostly original, including two colored plates. *St. Louis, C. V. Mosby Medical Book & Publishing Co.*

MODERN MEDICINE. ITS THEORY AND PRACTICE.—In Original Contributions by American and Foreign Authors. Edited by *William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal.* Assisted by *Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore.* In seven octavo volumes of about 900 pages each, illustrated. Vol. VI, Diseases of the Urinary System, or the Ductless Glands, of the Muscles, Diseases of Obscure Causation, Vasomotor and Trophic Disorders, Medical Aspects of Life Insurance. Just ready. Price per volume: cloth \$6.00 net; leather, \$7.00 net; half morocco, \$7.50 net. *Lea & Febiger Publishers, Philadelphia and New York, 1909.*

The value of medical societies, especially to the young physician, is immeasurable in many ways. How many medical colleges convey a knowledge of this fact to their students? Are there a dozen in the whole country? To the shame of the colleges, no! Correct conduct as a physician in little things and big, toward his patients and toward his confreres, making for happiness and success.

Are there a dozen medical colleges in the county that appreciate this? No, "All that is necessary is that a man should be a gentleman" is the excuse, but this is not true. The medical code is broader than the social code.—Journal A. M. A.

ACCURACY IN THEREAPEUTICS.

The efficiency of a medicinal agent cannot be determined by mere physical appearance. Two specimens of fluid extract of digitalis, for example, may look precisely alike. One, upon administration, may exhibit a wholly satisfactory therapeutic action; the other, given under precisely the same conditions, may prove to be practically inert. Lack of uniformity in the crude drug, and absence on the other hand of an adequate method of assay, account for the singular discrepancy. And this serves to show the necessity of standardized remedial agents if we would proceed in the treatment of disease with any assurance of success. It emphasizes, too, the futility of trusting to chance that the extract of a crude drug contains what the practitioner supposes it to contain and what it ought to contain.

It is a healthy sign that manufacturers of medicines—some of them at least—are giving serious thought to this matter of standardization. It is cause for congratulation that the largest producers of medicinal products in the world consider the subject of sufficient importance to make it the basis of expensive promotion campaign. We have in mind a series of announcements which have been published from time to time in practically the entire medical press of the country, the latest appearing under the significant title, "Who is the Keeper of Your Reputation?" In their plea for greater accuracy in therapeutics Messrs. Parke, Davis & Co. are doing vastly more than to exploit the products of their manufacture—they are rendering a lasting service to medicine.

It is to the physician's own interest, and to the interests of his patients, to prescribe standardized preparations; to provide himself with the most trustworthy agents that the market offers. The best is none too good for his purpose.

Goitre and Malignancy.

Crile points out that six to ten per cent. of goiters that come to operation show malignant degeneration. Hence a goitre that has been quiescent and suddenly assumes an active growth ought always to be considered in the light of a possible malignancy and should be removed.—Northwest Medicine.

Hemoptysis.

I now always carry three-minim capsules of amyl nitrite, and as soon as I am called to a case of hemoptysis break one and tell the patient to inhale it quietly and regularly and at the same time warn him of the feeling of fulness in the head it produces, as I found this feeling had alarmed one or two patients. The bleeding usually stops at once, though the patient may go on coughing up clotted blood which has been already effused.
—Dr. George A. Grace-Calvert (Lancet.)

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THE FLORENCE DAILY TIMES

PRINTING AND STATIONERY

FLORENCE, SOUTH CAROLINA

South Carolina Medical Association

Next Annual Meeting at Laurens, S. C., April 20, 1910.

House of Delegates Convenes April 19, at 2 p. m.

District No. 1: Charleston, Berkley, Dorchester, Colleton, and Beaufort. Councilor, Dr. J. T. Taylor, Adams Run, 1911.

District No. 2: Orangeburg, Bamberg, Lexington and Calhoun. Councilor, Dr. W. P. Timmerman, 1910.

District No. 3:—Saluda, Newberry, Greenwood, Laurens and Abbeville. Councilor, Dr. O. B. Mayer, Newberry (Chairman of Board), 1911.

District No. 4: Anderson, Oconee, Pickens, Greenville, Spartanburg, and Union. Councilor, Dr. J. F. Williams, Roebuck, 1912.

District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor, Dr. W. B. Cox, Chester, 1910.

District No. 6: Chesterfield, Darlington, Florence, Marlboro, Marion, and Horry. Councilor, Dr. William Egleston, Hardeeville, 1911.

District No. 7: Richland, Sumter, Clarendon, Williamsburg, Georgetown and Lee. Councilor, Dr. F. M. Dwight, Wedgefield, 1910.

District No. 8: Barnwell, Aiken, Edgefield, and Hampton. Councilor, Dr. T. G. Croft, Alken, 1912.

Officers

President, John L. Dawson, M. D., Charleston.

2nd Vice-Pres., C. M. Rees, M. D., Charleston.

1st Vice-Pres., F. H. McLeod, M. D., Florence.

3rd Vice-Pres., A. H. Hayden, Summerville.

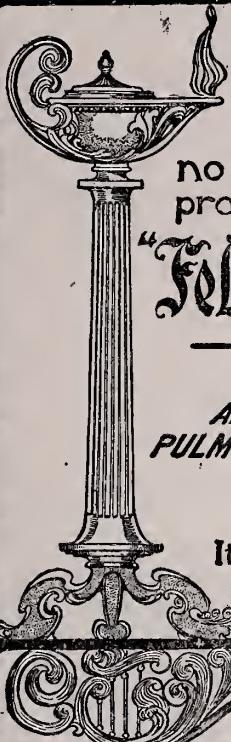
Treasurer, C. P. Aimar, M. D., Charleston.

Secretary, Walter Cheyne, M. D. Sumter.

TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay:

County	Society	President	Secretary	Time of Meeting
Abbeville	J. B. Britt	C. C. Gambrell, Abbeville		
Anderson	J. L. Gray	J. R. Young, Anderson	Semi-Mo., 1st and 3rd Monday	
Aiken	C. A. Teague	T. A. Quattlebaum, Gr't'ville	Monthly, 1st Monday	
Bamberg		J. J. Cleckley, Bamberg		
Barnwell	A. B. Patterson	L. F. Bonner, Blackville		
Beaufort	H. M. Stuart	M. B. Cope, Port Royal		
Charleston	John L. Dawson	A. J. Jersey, Charleston	Semi-Mo	1st and 15th
Cherokee		B. L. Anken, Gaffney		
Chester	J. G. Johnston	W. B. Cox, Chester	Monthly	1st Monday
Clarendon	W. M. Brockinton	C. B. Geiger, Manning	Quarterly	
Chesterfield	T. E. Lucas	J. W. McCanless, Chesterfield		
Colleton	J. T. Taylor	T. G. Kershaw, Walterboro	Monthly	
Darlington	J. F. Watson	J. C. Lawson, Darlington		
Dorchester	J. B. Johnston	E. W. Simons, Summerville	Monthly	1st Monday
Edgefield		J. G. Edwards, Edgefield		
Fairfield	R. B. Hanahan	Samuel Lindsay, Wlnnsboro	Quarterly	
Florence	F. H. McLeod	J. H. Pegle, Cartersville		
Georgetown	Olin Sawyer	W. M. Gaillard, Georgetown	Monthly	1st Friday
Greenville	L. L. Richardson	W. M. Burnett, Greenville	Monthly	1st Monday
Greenwood	R. B. Epting	J. B. Hughey, Greenwood	Monthly	1st
Hampton	T. B. Whatley	C. A. Rush, Hampton	Monthly	3rd Wednesday
Horry	A. D. Lewis	J. S. Dusenbury, Conway	Monthly	2nd Monday
Kershaw	S. C. Zemp	W. J. Burdell, Lugoff		
Laurens	W. D. Ferguson	J. H. Teague, Laurens	Monthly	4th Monday
Lee	B. L. Harris	R.O.McCutcheon, Bishopville	Monthly	1st Tuesday
Lexington	W. L. Kneece	J. J. Wingard, Lexington	Quarterly	
Marion	B. M. Badger			
Marlboro	W. M. Reedy	Chas. R. May, Bennettsvllle		
Newberry	J. M. Kibler	J. J. Dominick, Prosperity		
Oconee	J. W. Wickliffe	E. A. Hines, Seneca		
Orangeburg	W. L. Pou	D. D. Salley, Orangeburg	Monthly	3rd Tuesday
Pickens	J. L. Bolt	R. J. Gilliland, Easley	Monthly	1st Wednesday
Richland	L. A. Griffith	Mary R. Baker, Columbia	Every 2nd Monday	night
Saluda	D. B. Frontis	J. D. Waters, Coleman		
Spartanburg	S. T. Lancaster	L. Rosa H. Gantt, Sp'tnb'g	Monthly	last Friday
Sumter	Archie China	E. R. Wilson, Sumter	Monthly	1st Thursday
Union	J. T. Jeter	R. R. Berry, Union	Weekly	
Williamsburg	W. H. Woods	J. B. DuRant, Lake City	Monthly	
York	M. J. Walker	John I. Barron, Yorkville	Bi-Monthly	



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The Journal

South Carolina



Medical Association

Volume V.

Florence, S. C., July, 1909

Number 7

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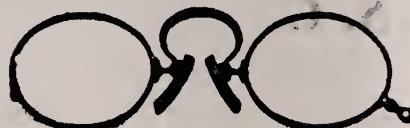
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ORIGINAL ARTICLES

THE SOURCES AND MODES OF INFECTION IN TUBERCULOSIS.

BY MAZYCK P. RAVENEL, M. D.,

Professor in Bacteriology, University of Wisconsin.

Director of State Hygienic Laboratory, Madison, Wis.

Mr. President and Members of the
South Carolina Association.

It is hard for me to express the great pleasure with which I received your invitation to address this association, the first medical organization with which I was ever connected.

It was my good fortune in my research work to take up a question full of interest to the world from the practical as well as scientific standpoint, and

to have published my researches at a time when the greatest authority in the world was writing on the same subject took a stand contrary to that to which my studies had led me. This circumstance has given to my work an importance which it scarcely deserved, and has led to invitations from five foreign countries and many states and cities of our own Union. From the bottom of my heart I can say that the invitation to speak before your body has meant more to me than all the rest put together, and in addition to the honor I feel you have paid me, it gives me more pleasure than

*The address on Medicine, delivered before the South Carolina Medical Association Summerville, S. C. April 21, 1909.

I can express to be among my old friends and associates in our dear old State.

The subject which I have selected "The Sources and Modes of Infection in Tuberculosis" is an enormous one, and I must therefore confine myself to the main points at issue. I will take up first the modes of infection; and, second, the sources of infection. Under the first head I might go into details at a length that would weary you. For the practical purposes of this discussion I will consider only the two great modes of infection namely the respiratory tract and the digestive tract, under sources of infection I might again go into wearisome detail, but will confine myself to two chief points to be studied, namely, the human being and tuberculous cow.

It is easy to understand how all the early workers attributed infection to the respiratory tract. Tuberculosis is, of all diseases known, most prone to effect the lungs both in man and in animals. Recent experiments have, however, tended to throw doubt on this mode of infection. We know now that disease may show itself most prominently, not at the point of entrance, but in some distant portion of the body, and this is perhaps particularly true of tuberculosis. Von Behring, for example, has shown that inoculation with tubercle bacilli into any part of the lymphatic system, as under the tongue, can lead to typical pulmonary tuberculosis identical in appearance with the disease produced by inhalation.

Schroeder and Cotton have shown us that in hogs and calves inoculation with pure cultures of the tubercle bacillus into the extremity of the tail would produce a miliary tuberculosis most marked in the lung in every instance. In these experiments the route followed by the tubercle bacillus was not marked except by the enlargement of the superficial inguinal glands and in some animals of the bronchial glands. A similar result has been obtained frequently in hogs infected by subcutaneous injections in the abdominal regions and in numerous animals infected by feeding.

There can be little doubt that in the past too much stress has been laid on caseation as an evidence of tuberculosis

in lymph glands. Harbitz and others have shown that lymph nodes which exhibit only a simple hypertrophy, or are entirely normal in appearance, may contain virulent tubercle bacilli. In 13 of 18 cases he found tubercle bacilli only in the cervical nodes and in infants under one year of age. The early experiments made to demonstrate infection by inhalation were all made with one fatal defect, namely, no attempt was made to prevent the swallowing of the inhaled material, whether this material entered through the nostril or through the mouth. Perhaps the experiment of Cornet has had more effect than any other one in fixing the belief of respiratory infection. Cornet placed tuberculosis sputum on a carpet. In the same room he placed upwards of forty guinea pigs on shelves at different heights above the floor. The room was then entered and the sputum broken up and swept about with a stiff broom, the dust of course flying into the air. A large proportion of these animals became tuberculous and the experiment was deemed conclusive as showing infection through the respiratory tract. No effort was made to prevent the swallowing of the inhaled material and there is no proof whatever that the guinea pigs which succumbed did not receive their infection through the material swallowed. In the human being we are told that upwards of a pint of fluid passes backward from the naso-pharynx into the stomach every twenty-four hours, even during health, an amount which is increased when there is any irritation of the parts; consequently, material which is inhaled passes into the stomach and infection takes place from the intestinal tract.

We must, however, consider other portions of the digestive tract than the intestine. I am inclined to believe, on very strong evidence that the tonsil is a frequent port of entry for infections of various kinds as well as the tubercle bacillus. The tonsils are situated near the point where the respiratory and digestive tracts cross each other and are consequently exposed to any germs which enter either through the mouth or through the nose. Studies made on this

point are exceedingly interesting. A number of observers have shown that the tonsils are a frequent source of infection in tuberculosis. Of 1671 cases collected from literature 88, or 5.2 per cent, showed primary tuberculosis. Where the examination is made by the systematic inoculation of animals a higher percentage even is obtained. Thus Lartigau, in a series of 75 cases, found 12, or 16 per cent, to be tuberculous, and many similar experiments can be quoted. Experimentally it has been demonstrated at the laboratory of the State Live Stock Sanitary Board of Pennsylvania that animals are readily infected through the tonsils. A single application of tubercle bacilli to the back of the mouth and tonsils, without injury to the mucous membrane, always brought about primary tuberculosis of the tonsils followed promptly by involvement of the submaxillary and cervical glands and extensive disease of the lungs. Baumgarten and Orth, as early as 1884, observed that animals fed with tuberculous material constantly showed primary tuberculosis of the tonsils. I have demonstrated in swine and in monkeys that infection takes place readily through the tonsils and that extensive tuberculosis of the lungs follows rapidly without involvement of the intestine. The swine on which I experimented were given tubercle bacilli on bread soaked in milk. The monkeys were fed banana infected with tubercle bacilli, the object in both cases being to avoid any possible injury to the mucous membrane our effort being to demonstrate infection through the unbroken surfaces. On this point I may say that the observation made originally by Dobroklonsky has been confirmed in every part of the world, and I believe that no one at the present time questions the permeability of the unbroken mucous membrane by the tubercle bacillus. Dr. Theobald Smith has recently published a paper giving the report of three cases in which tonsils removed from children showed infection by the bovine tubercle bacillus. It appears to me that it scarcely needs an argument to prove that these children obtained their infection from the use of tuberculous milk. May I give you an outline of further experiments conducted

by myself to demonstrate the passage of the tubercle bacilli through the unbroken mucous membrane. These experiments are not more conclusive than those of other workers, but it is sometimes more interesting to learn first hand of such work.

Our first experiments were done in 1903. Dogs were kept under observation and fed on soft food for upwards of ten days, the idea being to rid the intestinal tract of pieces of bone or dirt and rough material such as is often found in the cana of dogs. This object was still further carried out by giving a purge of castor oil, so that when the experiment began we were quite sure that there was no abrasion in the mucous membrane of the intestinal tract. A single meal was given by means of a stomach tube, consisting of equal parts of melted butter and warm water thoroughly shaken, into which a pure culture of tubercle bacilli was put. Three and one-half to four hours later the dogs were chloroformed. As much chyle as possible was collected from the thoracic duct and the mesenteric glands finally removed. The material thus collected was examined under the microscope, and tubercle bacilli demonstrated in a number of cases.

However, for the chief proof we relied on the intraperitoneal inoculation of guinea pigs, by which we showed that in eight out of ten animals experimented on tubercle bacilli had penetrated the intestinal canal in large numbers during this short period of digestion. The intestine was examined microscopically and macroscopically, but no lesions could be detected.

Dr. John Reichel and myself have more recently carried out an extended experiment along this line, using guinea pigs. In order to avoid the objection which has been raised, that a possible aspiration of the tubercle bacilli took place even though a stomach tube was used, we did a laparotomy, drawing the stomach into the wound and injecting tubercle bacilli mixed with cream directly into the stomach. Some of the animals were killed after three and one-half hours, others living considerably longer. The lungs were then removed carefully, washed in distilled water, and ground

into an emulsion which was then injected into the peritoneal cavity of other guinea pigs. Of the sixty-five animals operated on we obtained positive results in fifty-six per cent, proving, it appears to me, that tubercle bacilli penetrated the healthy intestine and also reached the lung within the period of digestion.

Stronger evidence has since been given by Rabinowitsch and Oberwarth who used swine for their experiments. They first established a gastric fistula through which the animal was nourished. A second operation occluded the oesophagus completely, after which tubercle bacilli were introduced into the stomach. In twenty-two hours tubercle bacilli were found in practically every organ in the body.

Still more recently Orth and Rabinowitsch have given much confirmatory experimental evidence and find that in most of the animals infected through the intestinal tract the lungs showed marked disease.

In his argument against the danger of tuberculous cattle to mankind Koch has said that primary intestinal tuberculosis is rare. As an actual fact, the reports of the pathologists from different parts of the world and even different portions of the same country vary greatly on this point. In Germany, Wagener, Hof and Heller find it quite commonly. Nebelthal in Halle found primary intestinal tuberculosis in 19 per cent of 26 autopsies Lubarsch in 297 autopsies found 21.2 per cent. of primary intestinal tuberculosis in Berlin, von Wagener, at the Bethanien Hospital, from October, 1903, to October, 1904, found in 67 autopsies on children from one to fifteen years old, primary intestinal tuberculosis in 16 per cent, while at the Charite, from October 1902, to December, 1903, Orth found in 131 children only 1.5 per cent of undoubted primary intestinal and mesenteric disease. Edens, among 31 tuberculous children at the Bethanien Hospital, seen from October, 1904, to October, 1905, found 33.5 per cent of primary intestinal disease, while Orth during the same years found only 9 per cent in 77 children (Rabinowitsch). At the same hospital, from October, 1905, to October, 1906, Edens found 18 cases of primary

intestinal tuberculosis in 409 autopsies, at all ages. Of the 74 children from one to fifteen years old, 21 of whom were tuberculous, 10 (47.6 per cent) showed primary intestinal involvement. Of 319 cases from fifteen to ninety years old, 130 were tuberculous, and 8 (6.2 per cent) showed primary intestinal involvement. In England, of 1560 autopsies on children, primary intestinal disease was found 290 times, or 18.6 per cent. In Copenhagen the figures have been found to run about 10 per cent for all cases of tuberculosis. Harbitz, in 117 cases, found tuberculosis primary in the digestive tract in 22 per cent. All these observers find a number of cases in which it is impossible to tell the primary seat of the disease. It is fair to presume that a certain number of these cases were primary in the intestine, which would run our figures higher. Most assuredly it can not be claimed that primary intestinal disease is a rare or negligible quantity.

At the recent Congress in Washington where Koch again made the statement that primary intestinal tuberculosis was rare, and quoted certain figures, he was ably answered by Fibiger, of Copenhagen who showed that Professor Koch was not giving all the evidence at hand. For instance, Benda, of Berlin, who in 1903 stated that he has only found 2 or 3 cases in 18 months, in 1905 said that the frequency of intestinal tuberculosis was greater than he originally thought. From 1899 to 1901 only 7 cases of primary intestinal tuberculosis were reported in the Berlin Urban Hospital among 75 tuberculosis children. However in 1905 Orth found 6 cases in 77 children, although previously had only 2 in 33. Baginsky, who in 1901 had observed a single case of intestinal infection, reported 6 cases in 1902 and 30 cases among 389 children in 1905. One of two conclusions is therefore forced on us:—first, that pathologists find primary intestinal tuberculosis when their attention is directed to a careful examination for it, or else that the weight of Koch's authority when he said in 1901 that there was no danger of transmission from cattle to man, led to carelessness and that the death rate from this form of tuberculosis has consequent-

ly increased.

In the light of our present knowledge I do not think that we can deny that respiratory infection is responsible for a considerable number of cases of tuberculosis. I believe that Flügge has done a great service in demonstrating the danger of the spray ejected by consumptives in coughing, sneezing and the pronunciation of certain letters, this spray containing tubercle bacilli. While some of his experiments demonstrate respiratory infection, some of them are open to the objection that the possibility of swallowing inhaled material was not excluded. It is therefore a wise precaution to instruct consumptives always to protect the mouth by means of paper handkerchiefs during coughing and sneezing.

The sources of infection may be briefly considered. At the present time we must acknowledge that man is the greatest danger to man and that the sputum of consumptives is the chief source of the spread of the disease from one person to another, never mind how it gains entrance to the body. The great point is the consideration of the danger to man from the milk of tuberculosis cattle. So many misleading statements have been published, even in medical journals, regarding this matter that I wish to state the exact words of Koch. In 1901 he said:

I. "Human tuberculosis differs from bovine and cannot be transmitted to cattle."

2. "Though the important question whether man is susceptible to bovine tuberculosis at all is not yet absolutely decided, and will not admit of absolute decision today or tomorrow, one is, nevertheless, already at liberty to say that if such a susceptibility really exists the infection of human beings is but a very rare occurrence. I should estimate the extent of infection by the milk and flesh of tuberculous cattle, and the butter made of this milk is hardly greater than that of hereditary transmission, and, therefore, do not deem it advisable to take any measures against it."

In Washington the other day he said:

1. "The tubercle bacilli of bovine tuberculosis are different from those of human tuberculosis.

2. Human beings may be infected by

bovine tubercle bacilli, but serious diseases from this cause occur very rarely.

3. Preventive measures against tuberculosis should, therefore be directed primarily against the propagation of human tubercle bacilli.

The last conclusion is practically what every one in the world has always held. Koch's first statement in 1901 was a colossal blunder which was so easily disproved that it raises serious question as to the value of any other opinion stated by him. Innumerable workers have shown that human tuberculosis can be transmitted to cattle, and it is astonishing that a man of his ability and scientific training should have made such a statement.

In regard to the transmission of bovine tuberculosis to human beings, you will remember that in 1902 I reported the finding of bovine tubercle bacilli in the mesenteric glands of a child proving for the 1st time that the bovine tubercle bacilli does cause the death of children. At the same laboratory this proof has been repeated at least five times. Following Koch's paper in 1901, the British Government appointed a Royal Commission to study the question, and the German Government appointed an Imperial Commission composed of twenty-five of the leading professors of the German Empire, including Koch himself, with same object in view.

The reports of both of these commissions recognize without question that the bovine bacillus is a real menace and a real cause of death to human beings. The German Commission out of 138 cases examined by them found 22, or 16 per cent, to be bovine. Of this number 84 were cases of tuberculosis of children, 63 of these showed infection by the human bacillus, and 21, or 25 per cent infection by the bovine germ. The English Commission studied 60 cases, 14 of which, or 23 per cent proved to be due to the bovine germ.

We are unable at the present time to fix exactly the proportions of cases due to the bovine germ, but it is certainly far from insignificant. Moss has collected as many cases of human tuberculosis as possible which have been especially studied with reference to the infecting or-

ganism. Of 306 cases which have been investigated 63, or a little over 20 per cent, were found to be due to the bovine type of bacillus. While we may admit that this probably does not represent exactly conditions as they occur throughout the world, we are certainly justified in saying that bovine tuberculosis is not a negligible factor in the production of the human diseases.

In Washington Koch abandoned his former position, and when driven in to a corner by incontestable facts, turned to the audience and said;—"I desire to put myself again on record by saying that I have never denied that bovine tuberculosis may occur in human beings." His London address certainly gave the impression to the public that he denied the danger to man from cattle tuberculosis, and his position at that time has done incalculable harm. He has now shifted his ground, and in Washington claimed that the bovine tubercle bacillus did not cause consumption of the lungs. Years of work must be carried out to prove or disprove this statement. While there is an academic interest, it makes no difference to the grieving mother or father who sees a dying child whether the cause of death is intestinal tuberculosis or lung tuberculosis. It is almost certain that the bovine tubercle bacillus changes in the human body so that at times its characteristics can not be recognized. The cases in which the bovine tubercle bacillus is found in the human body probably do not represent the entire truth. It has been definitely proven that the mammalian bacillus can be changed into the avian bacillus, the differences between which are much greater than between the human and bovine.

It has been well said of Koch that he has dignified his error with the trappings of a great reputation. I wish here to raise a protest against the common opinion that the ex parte statement of a man who has done a great work must be accepted without argument. Koch announced his discovery of the tubercle bacillus in 1882 after having done an enormous piece of work and isolated cultures from a number of sources. It remained for an American to point out in 1896 that there was a distinct difference

between the two germs as ordinarily found and Koch did not recognize this distinction publicly until 1901. It was then certainly as much as fourteen years after Koch's discovery before he found out that human and bovine bacilli possess certain differences, and nineteen years before he acknowledged it. Koch held that the bacilli were the same until 1901. The demonstration that the bovine bacillus could cause the death of the human being was also given by an American. Does it seem then that Koch's word should be the final one to be accepted on such matters? It is a great error to take this stand; even the greatest man is not infallible.

In closing let me say that I believe the evidence brought forth proves conclusively that the digestive tract as a portal of entry for the tubercle bacillus is very much more important than has even been heretofore supposed, even though for the present we must acknowledge that the respiratory tract is the chief avenue of invasion. I do not doubt that man is the chief source of danger to man, but tuberculous cattle unquestionably play a very important part in the spread of the disease to human beings. The man who tries to eradicate the disease must attack both sources of infection, and the fact that we are attempting to repel an attack from more than one source should spur us on to greater and more strenuous endeavor, for only so will this terrible scourge of the human race be ever brought under control.

DISCUSSION.

DR. J. L. DAWSONS

My conception of Dr. Ravenc's views on the subject is that the primary lesion does not take place in the alimentary canal but that the germ gets into the alimentary canal by being breathed through the nostrils, or being swallowed from the nasopharynx, posteriorly; they get into the intestines through the stomach, become encapsulated in the lymph cells, and are absorbed by the villi reaching the lymph channels, without producing any lesion. Passing into the common chyle-duct they lodge somewhere in the economy, the lungs, in ninety per cent.

of cases, hence we speak of consumption as pulmonary.

But in some cases they do not find lodgment in the lung. The germs may lodge in the kidney, and in this way the kidney becomes the primary focus. So, too, they may lodge in the joint of the child, and you have the form of joint tuberculosis.

He is quite correct when he says the kidney is a primary focus—it is a primary focus without lesion. The point I wish to make clear is that the kidney lesion may be a primary one but that the germ reaches it through absorption through the alimentary canal.

DR. FILLMORE, OF AIKEN:

I desire to ask Dr. Dawson this question, namely, why, when there is fat in the food, the absorption of the bacilli seems to be so much more easily accomplished?

DR. DAWSON

Dr. Ravenel said wherever there were

oily globules in the food stuff the bacilli traveled along with it. Take dogs, for instance: Feed them on soup in which there are no fat globules, no bacilli, tubercle or otherwise will be absorbed through the villi of the small intestine, but the minute you put fat in (and that is the reason he tried experiments with butter and cream) then all bacilli, tubercle or otherwise pass through the villi and are absorbed.

DR. WM. CORNELL, CHARLESTON: ..

May not that be because fat is the only food element that goes by way of the lacteals? Both the Proteids and 99 1-2 per cent. of the Carbo-Hydrates are absorbed by the blood vessels of the intestinal villi and through the liver, and then into the general circulation. But the fats, and fats only, go through the lacteals directly into the receptaculum, chyle and thoracic duct.

Dr. Ravenel spoke only of finding the tubercle-bacilli in the chyle of the thoracic duct.

SANITATION IN SMALL TOWNS.

BY WILLIAM EGLESTON, M. D., Hartsville, S. C.

The subject of this paper is one which should interest the average member of this association in more than a casual manner. The larger number of us live in the small towns and communities of this state I am sure, and will be free to admit that the most pressing need in our communities is greater diligence in public health measures. The cities and larger towns with their older municipal government and their greater sources of revenue have gotten sanitary problems so well worked out, that with them it is merely a matter of extending and perfecting

The smaller towns are either just commencing this work or have it yet to undertake.

In any discussion of the matter of sanitation for our small towns and communities there must be taken into considera-

tion the many factors which operate against us in this class of work. It is a hard matter to create a sentiment for public health regulation. It is a harder matter still to enforce the few laws bearing on sanitation. The people cling very tenaciously to the unrestrained privileges they enjoyed on the farms, from which they have moved, or around which the town has grown up. They resent as officious and meddlesome the regulations which undertake to teach them how to keep their premises; which deny them the hog pen; which govern the disposition of their right soil; which overturn their water barrels and oil their cisterns which quarantine their families and which in short compel them to protect themselves and their neighbors against discomfort and disease. They resent and resist these things with peculiar vigor, and we are all witnesses to the fact that people get madder about sanitary restrictions than almost any other

*Read before the annual meeting of the South Carolina Medical Association at Summerville, April 20, 1909.

thing in the world. And yet sanitation in our small towns will, if carried out with any degree of efficiency, give us results which are very satisfying and encouraging. Results too which will soon enlist the co-operation of the better element of citizenship.

All sanitary measures must, if they are to be successful, have back of them a faithful intelligent Board of Health, an energetic Health Officer and a Mayor and Council who appreciate the fundamental laws of health and who sympathize with and encourage every reasonable effort for public health protection. In this way the opposition and distrust of the individual citizen, which militates so strongly against our work, is overcome and replaced with the spirit of understanding and confidence which must be had before any large success rewards us.

I want to tell you of a few matters of sanitation we have undertaken to deal with in the town of Hartsville and the measure of success we have had. The town has a population of about three thousand, has grown rapidly and unfortunately has been rather more closely crowded than is usual in our country where land is plentiful. Its citizenship is made up for the larger part of people fresh from the farms and consequently just a little tenacious at times of their old plantation rights.

We have undertaken to control to a more or less extent the following matters pertaining to public health:

1st. Permanent Recording of Vital Statistics.

2nd. The Hog Pen.

3rd. Regulation of the Water Supply.

4th. Disposition of the Night Soil.

5th Disposition of Excreta of Typhoid and Other Infectious Diseases.

6th. Isolation and Quarantining of Contagious Disease Cases.

7th. The Extermination of the Mosquito.

8th Inspection and Regulation of Milk, Meat and Fish Supply.

VITAL STATISTICS.

The town has a law which requires that every physician report to the health officer before the 10 of each month the

number of births (giving sex and color), the number of deaths (giving age, sex, color and cause of death) and the number of still-born children (giving sex and color) of the previous month. The undertakers are also required to record and report all coffins sold in the same period, giving name of deceased, date of death, and as far as possible the cause of death. The reports are recorded in permanent form. It is purposed to keep from now on a permanent record of the contagious diseases. It is also purposed in order that the death rate may be absolutely reliable to permit no interments without the health officer's permit.

THE HOG PEN.

This a matter the regulation of which always gives rise to trouble. There is certainly nothing dirtier or more productive of disease producing conditions than a hog pen. Yet the people hold to them with peculiar pertinacity. They have been finally driven out of our town by a series of laws, which affected first their size and then their proximity to dwelling houses. I should say that the first step in small town sanitation should be to abolish the hog pen. When this is done the fight against the other measures will not be so vigorous or vociferous.

WATER SUPPLY.

The town has recently installed a most complete system of water works and sewerage, and an abundance of artesian water has simplified matters in this direction. Before this time the open wells were all filled and people were discouraged from using water from the ordinary driven pump and encouraged to use the artesian water provided by the town at several free wells. Any suspected water supply is now subject to analysis at once. The artesian water whether from private wells or from the public municipal supply well has always given a test chemically and bacteriologically pure.

NIGHT SOIL.

This is a matter which the new sewerage system has also much simplified. Connection with the sewerage system

has been made obligatory within the fire district, which corresponds to the crowded business portion of the town. It is planned to extend this district each year until it embraces the entire town. Where the old privies are still in use the plan which has been found successful for years is being continued. Under each seat upon a bench is placed a large galvanized coal scuttle into which all drippings fluid and solid go. These scuttles are emptied at intervals of from three days to two weeks, depending on the seasons and the location as regards the congested portion of the town. At each emptying there is placed in the scuttle a quantity of commercial disinfectant and deodorant which to some extent disinfects the contents and discourages, though it does not altogether prevent, the swarming of flies. The night soil is carried some miles without the town limit and there used as fertilizer. A tax is imposed on each privy, and is collected quarterly and the property owner is given a ticket to be checked off at each cleaning. The only advantage claimed for this system primitive as it is, is that the scuttle from its shape offers less chance of losing a portion of the drippings and that it retains and makes possible to carry off the fluid as well as the solid excreta.

TYPHOID FEVER EXCRETA.

The physicians are required to report immediately all suspected cases of typhoid or of other contagious or infectious diseases. The health department immediately places at the house a large covered can with a supply of disinfectants. The family is instructed to put into this can all excreta fluid and solid and all water used in bathing the patient together with a quantity of disinfectant each time. They are particularly instructed to keep the cover on so that flies may not swarm the contents. This can is emptied each day, and in this way the possibility of fly infection and soil contamination is reduced to a minimum.

ISOLATION AND QUARANTINING.

Contagious diseases are so far as the dwelling houses are concerned promptly isolated and quarantined. Small pox among the negroes is immediately taken

to the pest house. Among the whites it is rigidly quarantined.

THE MOSQUITO.

Our experience in this matter I call to your attention with pride. It is a sanitary measure within the power of all communities and one where the results are certain and not problematical. Outside of its larger benefit in the doing away with malarial diseases it has a real value to every citizen in making his premises pleasantly habitable during our long hot summers. Moreover it is an advertisement of material worth to any town to be comparatively free of this widespread pest. The fight against the mosquito was initiated some nine years since by one of our public spirited well informed private citizens, and it is to his efforts that our present thoroughly successful system is due. The methods in use for the extermination of the mosquito are simple enough, and the only difficulty lies in their persistent application. As used in our little town with such a large degree of success they are as follows: Drainage is carefully looked after. All standing water of however small a quantity is oiled with kerosene twice a week throughout the spring and summer months, and late into the fall. This is done often if between the oilings rain has fallen in sufficient quantity to wash the oil away. In very mild winters the oiling is continued, but at longer intervals. Since it is a well established fact that the mosquito is no traveller, and that the pests which annoy us are almost always bred on our own or some near neighbors premises, a rigid house to house inspection is made at short intervals to search for and destroy all breeding places. In search of these breeding places it is necessary that a careful inspection be made of all watering troughs to see that they are emptied and cleaned frequently and that the water is not already filled with the larvae. It is necessary to inspect all water tanks, cisterns and reservoirs and to have them properly covered or screened, and also to, oil them plentifully if there is discovered any sign of mosquito breeding. And right here it

may be well to say that the popular idea that the mosquito will not breed at much height above the ground is incorrect. We have found them breeding about one hundred feet above the ground. Rain barrels breed mosquitoes by the million. We absolutely prohibit them. All tin cans, old bottles, old pots, and things of this sort which hold water must be carefully collected and carried off one's premises—they are time and again found to be the breeding place for a cloud of mosquitoes which are making a neighborhood uncomfortable. Cellars when allowed to hold water for even a short period will breed thousands of the pests and

then harbor them all the year round and incidentally give one a hard job both to locate and exterminate them. Obstructed down spouts and gutters which have sagged or become clogged will breed them in plenty; and it was a sagged gutter with its pool of water which gave us at one time a hard search to locate the breeding place in a neighborhood where there was much complaint. The forks of large trees will in long wet seasons hold water and breed many mosquitoes and this always offers a difficult problem for the health officer. I have personally discovered a large flower vase in my own home to be breeding hundreds of the pests. Thick hedges, high weeds and dense vegetation of any kind afford a safe harbor for the mosquito and for that reason it becomes a municipal duty to keep the weeds cut and to discourage the growing of thick vegetation of any sort within the town limits. In addition to this active and constant work against the mosquito and his breeding places, our board of health conducts a campaign of education by means of letters prominently published in the paper calling attention to the part the mosquito plays in malarial diseases, its tendency to breed in large numbers wherever it can find standing water, and the fact that it is usually right on one's own premises and not from some distant swamp or creek that one's mosquito trouble comes. These letters urge the universal use of screen doors and windows, as a protection against both the fly and the mosquito. The letters serve to keep alive an interest in the matter,

and teach the people the habits of the mosquito and what measures of protection to undertake. It is a matter of common belief that the mosquito must come from some pond, or creek, or swamp, and I have heard the question asked in all seriousness by a good general practitioner, as to what swamp we had to direct our measures against in our mosquito fight. I venture to say that the large pond and the adjacent swamp or two within sight of Hartsville do not account for one per cent of the mosquito which are found in the town. True we do oil the standing water at these places as a precaution and for the protection of the people nearest them, but it is not the swamp or pond which breeds our pests, but the small bit of stagnant water found in hundreds of unsuspected spots around our premises.

Our fight has been an unqualified success, both as affecting health conditions and personal comfort. It can be undertaken by any town, and at small cost. We are comparatively free of the mosquito the year round and in this matter we are to my personal knowledge more fortunate than some of our wealthier and better situated sister towns.

We are about to undertake the inspection of the milk, meat and fish supplies and have in preparation laws which will safeguard the public in these matters.

The matter of street sprinkling has been urged upon the authorities from a sanitary standpoint and has met a cordial and sympathetic approval. From this time the sprinkling will be done with a view to minimizing the chances of infection from dust laden atmosphere, as well as for personal comfort.

The matter of the house fly is giving us much concern. There seems to be an abundance of data bearing on this pest as a certain and tremendous disease disseminator. But there is a paucity of data as regards fly extermination methods. We are waiting the first suggestion offering any hope of success. I believe that we have overemphasized the importance of water, of milk and of dust and have correspondingly underestimated the importance of the ever present

fly as infection carriers. It seems certain that the next great sanitary work will be fly extermination, and when it is finished I am convinced that the greatest of all sanitary triumphs will have been recorded.

DISCUSSION.

DR. ADAMS HAYNE:

Mr. President, I think all honor and glory is due to the town of Hartsville for the effective scientific measures they have taken. Would that the other towns of South Carolina would adopt similar measures. The death and loss of time from malaria in South Carolina, is appalling. In Fairfield County I knew at one time five per cent. of the population in the farming districts there, ill with malaria; commonly from one to five patients in bed out of each family, and in one house all were in bed and unable to wait on each other.

The protection against the mosquito should be carried out strenuously, and such measures be passed by the legislature of this state, to do away with this disease, before which pellagra, Cochin China diarrhoea and cholera are insignificant, and I think the counties of South Carolina should adopt measures similar to Hartsville. The fact that malaria is so widespread points to the fact that such measures are necessary. So far as the anopheles mosquito is concerned, it isn't necessary to get rid of stagnant water, but they breed plentifully in slow running streams that have grass on the borders. The destruction of house mosquito is just as necessary, because it is a very disagreeable pest and introduces certain diseases, such as elephantiasis. That does exist in South Carolina because I saw three cases presented at the medical college of Charleston, and there is no reason why the disease should not spread, and I do not see why the methods carried out in Hartsville cannot be improved upon in any town, and with the Board of Health of the town, would result in good effect to those towns.

DR. MOORE, OF AIKEN:

I would like to emphasize the importance of the personnel of these town

boards of health. To my mind it seems very absurd that you should make a town board of health of any old material. If you make it out of the best physicians, you sometimes have a poor enough board, but when you make it up of laymen, you cannot expect much. So I think it is obligatory on the physicians in the community to see that the town boards of health are made up of men who ought to know what sanitation is, and I think, in that way, the co-operation of the councils could be more easily brought about.

We often find that the board of health is divided against itself, wrangling over some question, and then, when the doctors disagree, the people cannot have confidence; so I think that we should see that the Board of Health is composed of competent physicians. Doctors in general are not too well informed, and unless a man has gone into that especially, he is not likely to bring about any good reformation.

I think Hartsville is to be congratulated, and I think every community should have just such a good work going on.

DR. C. F. WILLIAMS, OF COLUMBIA

I had the pleasure of visiting Hartsville at the invitation of the Board of Health, and I want to commend the Board on the work they are doing.

I will state, for the information of members of the Board of Health who may be here, that the success the Board of Health at Hartsville is having, is due, in large measure, to the co-operation of the city council.

The great fault of sanitation in the smaller towns is due to the fact that, not only the board of health is negligent, but in the majority of instances the city council isn't willing to spend a little money to eliminate unsanitary troubles, not knowing the blessings brought about by such elimination.

DR. BURDELL:

I would like to urge the necessity of paying close attention to the milk supplies in the small towns. In a good many small towns I know, the individual cow furnishes that milk for the families, but

in towns of from three thousand up, they are getting to use milk from a common dairy supply; and they sometimes show horrible conditions. I know of some such conditions, and after Dr. Rev-enel's paper yesterday, I don't suppose many of us have much doubt as to the transmission of tuberculosis by milk.

We all know what was stated in Anderson, about the consumption of cow manure, consumed by the people of the United States. I think some seven hundred and sixty thousand pounds per annum ((groans from the society)—the cows are very seldom cleaned and what cleaning is done is merely the washing off of the udder, and every time the milker comes down on the udder, he shakes manure and dust from the flanks.

The statement is made that in any tuberculous cow you can find the bacilli being eliminated in the feces, and we can readily see how you can get the tubercle-bacillus in the milk, and I think where any party has from one to five cows, selling milk, that his dairy should be inspected regularly and rigidly.

DR. G. B. EDWARDS, DARLINGTON:

I am glad to have been here and hear Dr. Egleston's paper on a subject that appeals to me especially as I represent the city of Darlington on the board of health, which is Hartsville's county seat. I congratulate him for such a fine paper and that he has been able to succeed in

having the co-operation of his citizens. We also have adopted the same rule in regard to wells not in use and also the use of kerosene where necessary.

One other question that I consider a very serious one, and one which he did not mention and which we have adopted in our city, that is the prohibiting of burying the dead in the Church burial grounds, which are usually located about the churches, and generally surrounded by residences. All cities or towns that have no cemeteries should have one. We make exceptions in special cases as where a husband or wife has previously been buried in the church yard to let the other be buried there also, provided they are buried as follows: Dig a grave deep in the ground and make a vault of cement and brick, with walls all sides twelve inches, covered on inner and outer sides with cement plaster. This I consider of great importance on account of contamination of water of our surface well, but in Darlington our water supply comes from an artesian well and we do all that we can to encourage the drinking of that water, besides we have other artesian wells located in different parts of the city.

The vaults are rather expensive to build and that discourages a great many and causes them to bury in the cemetery. I believe this plan will finally break up the church burial grounds where it is adopted.

THE TREATMENT OF OPHTHALMIA NEONATORUM.

BY J. W. JERVEY, M. D., Greenville, S. C.

It has been reliably shown by the report of the Committee on Ophthalmia Neonatorum of the American Public Health Association, Journal A. M. A., March 13, 1909, that approximately one-third of all cases of human blindness in this day and generation are the result of ophthalmia of the new-born, which is the manifestation of gonorrhœal infection of the conjunctiva. The disease

being undeniably transmissible and undeniably preventable, the frequency of its often pitiful results is a severe commentary on the enlightenment of our civilization.

I am not one of those who take the whole medical profession to task for the shortcomings or carelessness of a part—that is neither my wish, nor, perhaps, my province. However I shall state three fundamental propositions, as I conceive them, for the care of the disease; and while I believe there is not a man who hears them that will dispute

*Read before the annual meeting of the South Carolina Medical Association at Summerville April 20, 1909.

their essential truth, yet I fear there are several who, for one reason or another, do not always practice according to this textual doctrine, which must and does express, I believe, the deliberate judgment of every physician. These three propositions are:

1.—So far as the direct responsibility of the medical profession for the appearance of this disease is concerned, its prevention is practically wholly in the hands and power of the general practitioner and the obstetrician.

2.—Especially in small towns and rural districts—comprising by far the greater part of our population—where the services of the ophthalmologist are not readily available, practitioners should be familiarly conversant with the best means and methods for the treatment of ophthalmia neonatorum.

3.—Owing to the extreme delicacy and the life long immeasurable value of the structures threatened by this disease, coupled with the frequent difficulty and vast importance of the early recognition of involvement of delicate and irreplaceable parts, it is always better for everybody concerned that these patients should be referred to the ophthalmologist for treatment, whenever his services are possibly available.

I am not going to offer here an elaborate therapeutic thesis for ophthalmological consumption. My colleagues in this special branch are quite as conversant with the subject as myself, and would probably not differ with me except in unimportant details. It is my heartiest wish just at this time to help arouse a renewed interest in the rank and file of the profession at large and to reiterate the essential, practical means of preventing this blennorhoea, and of managing it when it has not been prevented—not new theories or new practice, but plain, hard, commonsense, practical facts, grouped conveniently together for inwardly digestion and outwardly practical application.

Prevention, as we all know, is the treatment of paramount excellence—a truth which is, of course, applicable to a discussion of any transmissible disease, but in ophthalmia of the new-born especially so, since prophylaxis is so eas-

ily, simply, safely and surely accomplished. Statistical observations, which are absolutely conclusive on this point, are too voluminous (and are everywhere accessible) to be quoted here. Few have the hardihood to question their accuracy, and certainly no one of experience could do so. It is enough to say that the frequency of the disease in certain institutions has been reduced from 10 per cent to 2-5 of 1 per cent.

It is estimated by some authorities that 50 per cent of all men of this time have, been infected with gonorrhoea and among negroes the percentage is certainly a great deal higher. We are told by other genito-urinary authorities that gonorrhoea is usually an incurable disease (this may be questionable, but it is significant). It is, of course, obviously impossible that the practitioner should be familiar with the detailed venereal history of any but a small proportion of his patients; yet how many physicians in general practice make it an invariable rule to apply a one per cent solution of nitrate of silver in the newborn baby's conjunctival sac after a preliminary careful wiping of the eyes with a piece of sterilized gauze? Two or three drops of the silver solution between the slightly separated eyelids are all that is necessary—the infant does not produce enough tears to wash it out—and the children of parents rich and poor young and old, cultivated and coarse, phlegmatic and neurotic, of whatever name or station, race, color, or previous condition should be protected and it is their human right—by this prophylactic precaution.

The disease once developed, the keynote to its successful treatment is cleanliness—first, last and all the time, keep the eye free from pus. For this purpose a tepid saturated solution of boric acid is most desirable. A small all-over soft rubber bulb syringe (known in the drug stores as an "ear and ulcer syringe") is useful in this connection, since its tips can be inserted between and beneath the eyelids with little danger to the cornea, if carefully manipulated. This washing may be done every hour or two, though at times it must be more frequently practiced.

After washing, five or six drops of a 25 per cent. solution of argyrol should be instilled into the eye, the infant lying flat on its back. This application is of value both for its medicinal and mechanical properties. It is antiseptic, astringent, non-irritating, very penetrating and diffusive, and on account of the high specific gravity of the solution particles of pus and secretion are floated up to the palpebral opening where they are easily wiped away. A 2 per cent. solution of nitrate of silver should be gently but thoroughly brushed once a day over the conjunctiva of the lids, and well up into the fornices, the lids being everted if the swelling does not prevent. Great care should be exercised by anyone not skilled in this procedure lest the cornea be bruised or irreparable damage be done to an already weakened eyeball. When first seeing the case the attendant should be extremely cautious in separating the eyelids, lest some of the retained secretions spurt out into his own face. It is imperative that a critical examination of the whole cornea be made daily with the aid of a lid retractor, in order that any threat of its integrity may be quickly recognized.

Iced cloths to the eye for a half hour at a time, with one hour intervals are undoubtedly of great value for the relief of pain as well as the retarding of the gonococcal propagation; but iced ap-

plications must never be used when there is the slightest suspicion of corneal involvement. When the swelling is very great, puncture in several places of the puffed up bulbar conjunctiva, and external canthotomy may be required to relieve pressure. It is my belief that corneal ulceration in these cases is far more frequently due in the first instance to pressure interference with nutrition rather than to the specific infection. This ulceration is usually presaged by a steaming or clouding of the cornea, and is a complication of great gravity. The use of atropin is at once indicated in these circumstances, in addition to the silver therapy. Pure carbolic acid, pure tincture of iodine, or the galvano-cautery must be carefully applied to the ulcer. If perforation occurs the eye is almost certain to be lost. It may seem useless, but I want to add that perhaps nothing could be worse than the application of a poultice or a bandage to an eye infected by the gonococcus.

Any constitutional ailment must be coincidently treated, and the nourishment of the child must be carefully attended to. And, harking back once more to the importance of prophylaxis, the child's attendants should be warned of the extreme contagiousness of the affection.

MUCOUS COLITIS.

BY A. G. EADDY, M. D., Timmonsville, S. C.

In appearing before this learned body with this paper I do so with a realization of the fact that I can not do justice to the subject in hand, for, were I more competent, the literature on the subject seems rather scarce and I may add rather vague, but trusting that something may be brought out either in this effort or in the discussion which I trust you will be generous enough to accord, that may prove mutually helpful, I offer no apology for asking your atten-

tion for a few minutes to Mucous Colitis.

I look upon this disease as of peculiar importance to both physician and surgeon and it should be considered with more than passing interest, for in the hands of the General Practitioner lies largely the prophylaxis of the trouble in his intelligent treatment of early neurotics and of constipation and in the early recognition of those misplaced abdominal organs which is to be mentioned later as a prominent cause of this disease. The Surgeon, too, should not forget that the trouble may so closely simulate certain

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other acute abdominal conditions or co-exist with them, as to cause, in the first instance mistaken laparotomies or in the second case, an operation may prove disappointing in its results, as only a part of the trouble has been recognized.

In looking up Mucous Colitis, one can but be surprised at the rather confusion of the subject and of the striking difference in nomenclature, the varied symptoms, causes, treatments, etc., given. I find at least one author of prominence using as synonymous Mucous-Colitis, Mucous Colic and Membranous Enteritis. But while very closely allied I shall consider Mucous Colic as being present only in prolonged and neglected cases of Mucous Colitis.

Mucous Colitis is a disease manifested by various symptoms of disturbance of the bowels and stomach and regular or periodic discharges of masses of mucous, shreds, or casts of the bowels. As to etiology we find upon inquiry that mucous colitis is, as one writer has happily said, "a penalty of civilization with its intense life and its inherited nervous instability." It is most common in middle life, sometimes occurs before 30 years of age and even after 50 years, and has been known in children. It occurs most frequently among women, the percentage varying with different writers from 50 per cent. to 90 per cent., and in nervous individuals, patients often showing signs of functional nervous disturbance, are usually hysterical, hypochondriacal, neurasthenical and, according to Billings are often mentally disturbed. There seems to be a predisposition to the disease among women with genital affections. It may follow other forms of intestinal disease, and may in its secondary variety, accompany dysentery, partial obstruction, chronic appendicitis, and long standing constipation.

In a paper, published last year, I believe, in the Journal American Medical Association Dunn states it causes as constipation, neurasthenia, hysteria, pelvic derangements, appendicitis, adhesions, trauma, neoplasms, etc., but there seems to be a general agreement that the two most productive factors are constipation and an intestinal neurosis with excessive mucus formation, one or both be-

ing present. It has been recently suggested that certain bacteria, among them the Bac. Coli Communis, has to do with its causation. Sometimes Mucous Colitis is found in association with a general infectious condition, but here we expect a membranous colitis of diphtheritic type, and it is likely to be distinguished from the type under consideration. Any obstruction, either mechanical or otherwise, interfering with bowel movement, limiting its mobility, or lessening its lumen, may prove at least a predisposing cause. Here we may find as playing a part bands of adhesions following laparotomies or pelvic inflammation; or as a result of tight lacing, emancipation or of flaccidity of abdominal walls or from some other cause, misplaced viscera may result, which by pressure upon intestines may act as a cause. The mode of life also plays a part in its development, as for instance often, either for convenience or other reason the natural inclination to stool is postponed, and ere long we find the intestine becoming accustomed to the accumulation of feces, and an evacuation occurring only once in several days. While it is true that in some instances women seem uninjured from this, all too often we find as a result development of a catarrhal condition of the large intestines with its consequent weakness of defecation and our patient resorting to enemas and drastics for relief of the unpleasant sensations, without exerting themselves to change their mode of life or to bring about a normal condition. We may expect from this an irritated mucus membrane as a consequence of the continual use of drastic purgatives and enemas, which may finally develop into a mucous colitis.

It is a fact but a short distance from constipation to Mucous Colitis, and Dunn says that constipation, in its broad sense, with its sequelae, is the sine qua non. He finds further that some confusion has arisen from efforts to make all of these cases conform to mucous colic, but while there is a wide variation in Mucous Colitis, varying from a simple catarrhal colitis with constipation to a mucus diarrhoea alternating with constipation, by far the greater number of cases belong in the class of severe constipation, with

only a probability of later becoming cases of colica mucosa, which latter we consider as a late stage of the disease in hand and rather rare.

Neurasthenia, either well marked or obscure, is almost invariably present either as an accompaniment of the constipation or else preceding or following it.

Very noticeable is Mucous Colitis among society women and very frequently will attacks be found to follow closely some nervous excitement.

Pelvic displacements have already been mentioned as an etiological factor, and this I wish to impress as it has more than once been brought to my notice very forcibly, even in my limited acquaintance with this disease, where a heavy retroverted womb with possibly enlarged or cystic prolapsed ovaries, or perhaps a wandering kidney, by pressure on, or irritation of the bowel interfered with the proper action of the bowel, aggravating the trouble and only by a correction of the misplaced organs could permanent results from treatment for the Mucous Colitis be obtained. Let me pause to state just here, parenthetically, if you please, that here is one form in which surgery alone would prove ineffectual and likewise would treatment directed solely towards relief of the constipation and colonic condition.

Appendicitis has been found in about 2 per cent of the analysed cases of Mucous Colitis, though we hardly deduce from this that either plays a part of much importance in the cause of the other, yet it would scarcely seem unreasonable to imagine a relation between the two especially in the chronic form of appendicitis as here we often have bands of adhesions formed which might easily aid development of Mucous Colitis.

With reference to the pathology of the disease, but few direct changes have been found in the colon except a redness of the mucous membrane and some adherent mucus or shreds. The characteristic feature is the formation of excessive quantities of mucus, which may be discharged in jelly like balls or mucus alone or mixed with fecal matter. The mucus may after attaching itself to the walls of the bowel be discharged later as skins, shreds or tape like bands, or even

as casts representing a mould of the bowel. The most usual form is when the skins or shreds of membrane are expelled mixed with soft fecal matter, and some times present the appearance of segments or longer parts of tape worm and may even be mistaken by patient for such. Often the colon may be found in a state of atonic dilatation, the contrary it may be found contracted, its lumen narrowed, and its walls apparently thickened. As is natural to be supposed there is often an accompaniment of hemorrhoids.

The symptoms of Mucous Colitis are indeed varied, being gastric, intestinal, nervous, and nutritional, and a full discussion of this trouble would entail complete review of neurasthenia in a broad sense. A careful history is very important, and we will usually find a history of chronic constipation with a discharge of mucus or membrane containing stool, usually attended with pain. Stools are usually very hard consisting often of small balls. Patient will usually complain of some form of indigestion, appetite poor and capricious, often a sensation of fullness of abdomen with flatulence and heaviness or possibly nausea and pain after eating. Patient will often deny themselves in selection of a diet in attempt to find a dietary that will not occasion discomfort. The intestinal symptoms are often most distressing, patient not being able to rest or sleep, will often get up and walk about for relief, and will often resort to purgatives or an enema as the symptoms are somewhat relieved from an evacuation of the bowel. We often find the patient has resorted to various purgatives and patent liver medicines for some time before consulting her physician, in efforts to find relief. There is a general feeling of dullness and lassitude and often a general weakness, with pain of a rather dull character along the colon, which is often referred to the back and shoulders. Pain may assume a gripping and tearing character, will sometime find neuralgias present with hot and cold sensations of the body. Nausea and vomiting may occur, but rather infrequent. The pain is of a paroxysmal character and is relieved with free bowel movement and expulsion of

mucus or membrane, as are the distension, general abdominal discomfort, depression, and general malaise, though occasionally will be found a soreness or rawness of the bowel after a free stool, which is rather persistent.

Sometimes, instead of a constipation, a diarrhoeal condition will be found, with stools mixed with large quantities of mucus.

One point that I should have mentioned earlier is that patients may never have noticed membrane in stools until their attention is directed to it. There may be streaks of blood with the expelled membrane or casts, and, indeed, in some instances considerable amount of blood may be discharged. The membrane or mucus in stool is often of jelly-like mass and may present on being placed in water, a complete cast of the bowel.

There is rarely any rise of temperature with attacks. One writer calls especial attention to the points of tenderness over the colon, and says they should be found in one or more places over the sigmoid, splenic, cecal, or hepatic flexures.

The neurasthenic condition of the disease is very striking and will usually vary as to the stage of advancement of the disease, and it is sometimes rather difficult to decide just how much is due to the disease proper rather than acting as a predisposing cause. Most of our Mucous Colitis patients will be found very much depressed, low spirited and with a striking hypochondriacal tendency present.

The patient's nutritional condition will usually be found to be in direct proportion to the degree of disturbance of the intestinal tract and the nervous system, and the majority will be found rather emaciated; though cases are noted of severe Mucous Colitis with nothing like the loss in flesh to be expected from the character of the trouble. There is usually an appearance of anemia which upon microscopical examination will often prove deceptive as the blood, even under these circumstances is frequently found to be normal.

Among the various complications which may occur I shall mention only a

few. There may be, according to Stengel (from whom, let me add here, I draw freely in this paper) in some cases a passage of intestinal sand, which resembles brick dust, or is of a grayish or white powder and composed of oxalate of calcium with magnesium and iron. This may occur frequently in small amounts or be discharged from time to time in large quantities.

Instances are recorded of a soreness of the bowel with a probability of actual ulceration as result of the separation of the firm membranous formation, but in such cases the discharge is usually attended by severe paroxysms of pain and probably hemorrhage, and is more properly of the Colica Mucosa type of the disease.

Various pelvic disorders may be found as for instance dysmenorrhea which may be of membranous type, or a membranous cystitis may be found.

The diagnosis of mucous Colitis will depend, usually upon the history of constipation with often hard masses of fecal matter with mucus or jelly-like substance in stool, or of the casts mentioned above in connection with the pain over the colon, general abdominal discomfort, distension, neurasthenic condition, with inability to sleep, absence of fever, and usually also, of nausea and vomiting, more or less pain while at stool which is relieved with a free bowel movement. Or, in short, the whole clinical picture of the disease will have to be borne in mind.

With reference to differential diagnosis we will want to distinguish from acute appendicitis, which should not prove difficult if we bear in mind the characteristic symptoms of the latter with its acute onset nausea, vomiting, high pulse rate, usually well localized pain, fever, peculiar decubitus, muscular rigidity, facial expression, etc., though in the case of chronic appendicitis or in the acute attacks, with rather uncertain symptoms, confusion might arise. I might say just here that I have known at least one such instance of mistaken diagnosis. A careful history of the case however, should avoid error, unless we had to deal with a case of Mucous Colitis

coexisting with chronic appendicitis which might prove difficult. Renal and hepatic calculus should not prove troublesome to differentiate if we keep in mind the points of pain of the latter and the history of Mucous Colitis.

Prognosis: While Mucous Colitis is a disease of chronicity with a tendency to steady progress yet it is not usually speaking, to be considered directly dangerous to life. From the general impairment of the patient's vitality, however, the resisting powers may be so much lowered as to make them more liable to succumb to other disease.

While this is often unsatisfactory as to permanent results, improvement at least may be expected in general practice, or with the proper control of our patient, we can usually promise a permanent cure.

TREATMENT

The first thing to be considered in the treatment is to be absolutely certain of the correctness of the diagnosis in every detail with especial reference to any misplaced organ or other cause which would demand surgical attention or prove a coexisting evil, exaggerating the trouble, which unless corrected, our efforts towards permanent results may prove most disappointing. The first thing I shall emphasize is the prophylaxis, and beg to insist that in the intelligent handling of early constipation we often prevent the development of Mucous Colitis.

With reference to diet in the treatment there seems to exist a decided difference of opinion, some of our best and more recent writers advising largely an unrestricted diet, feeding freely and varied, claiming that while this does at first increase the amount of mucus formation as a result of greater irritation, yet the increased strength obtained from the free feeding and the effect on the bowel of the unabsorbed residue, seems to prove beneficial, as the patient has often been restricting the diet and by the exclusion of those articles which leave a residue increasing the tendency toward constipation. On the other hand, men of equal prominence advise a very limited diet at first, with the rest in bed, allowing later a diet protective to the large

intestine, avoiding especially all seedy fruits, coarse vegetables, and brown bread, until the general health has been improved and the weight increased then gradually allowing patient to eat anything without choice. The latter method I consider more preferable. Some patients improve best with a change of scene with the consequent relief from household cares and worries and from social requirements. Suggestion seems also to play a rather important part, at least in the control of the nervous symptoms of some patients. With reference to drugs various lines of treatment and various remedies have been suggested and used, and the preparation and mode of administering in one case will sometimes prove most disappointing in another. We find the antiseptic and astringent solutions largely used as high enemas, especially silver, tannin, bichloride, etc., used daily to free the bowel from all impaction and irritating masses. Irrigations with chamomile water and peppermint tea have been largely employed, and while they do seem to at least afford relief it is not desirable to continue for long, direct colonic medication or irrigation as it may cause a return of symptoms or aggravate them. To keep the bowel free from mucus accumulation, I prefer a gentle injection at bed time of from 8 to 12 ozs. of olive or cotton seed oil, given with the hips elevated and retained all night. Some patients seem very much helped by this procedure. Astringents internally, such as sub. nit. and sub. gal. of bismuth have been advised, and in cases of pronounced flatulence, magnesium seems beneficial. This in my hands in the form of milk of magnesia, has proven very beneficial for relief of the distress of flatulence, although of but little or no benefit in so far as permanent results are concerned. Where there is much irritation of the bowel, peppermint or hyoscyamous have proven helpful. For relief of pain and irritation I have used with much benefit a pill of Ext. Hyoscyamous and Silver Oxide. The bowels should be kept freely open without irritation and where there is pronounced constipation laxatives must be used to keep up intestinal drainage. Castor oil in many cases

proves beneficial and sometimes has a permanent effect. Along with castor oil may be administered daily, salol or betanaphthol. Fractional doses of calomel administered daily sometimes is of benefit. In some cases saline purgatives or medicinal waters are used with benefit. In some instances our patient will need building up and attention given to gastric digestion. Here Nux. Vom. and Rhubarb, or Nux. Vom. and Bicarb. Soda, or the use of the digestives, pepsin, pancreatin, etc., will in all probability prove beneficial. In cases of painful paroxysms, hot applications to the abdomen are agreeable to the patient and usually relieves the pain. In instances of lax abdominal walls or misplaced viscera it may be necessary to use some form of abdominal support. Local treatment of the abdomen is at times helpful, massage by a skilled masseur, or the intelligent use of electricity have in instances proven of benefit. Recently, experiments have been made by Wright and some others, with vaccination, using killed cultures of *Bacillus Coli*, but its actual worth has hardly as yet been proven. Surgical measures have been claimed to prove beneficial, the tip of the appendix having been brought out and attached through an abdominal opening and daily flushing of the bowel used through the appendix, and in others an artificial anue has been employed for the same purpose. Such procedure, however, seems to me ill advised. Every case of Mucous Colitis will likely prove

a rule unto itself and it is indeed hard to lay down any positive and inflexible rule for procedure in the treatment of this disease. In my somewhat limited experience with this trouble, however, I most heartily agree with Dr. Barker and others who have given much attention to this class of complaint that if the case is one of much severity an absolute rest cure is essential to permanent and best results. When patients are allowed out of bed at all it is absolutely impossible to keep them under proper control for on the improvement of symptoms, they will be out calling, clubbing, driving or prove guilty of some other indiscretion, and our first labors are lost.

To recapitulate in a severe case our patient should be put to bed, allowing absolutely no company, no flowers no reading, no writing, just entire shut in from the outside world, and the treatment directed largely towards the nervous condition, using few if any drugs, save an occasional laxative or enema, and allowing for the first week only a milk diet increasing the amount of milk from day to day up to 3 or more pints on the seventh day. At the end of the first week bread, butter and sweets are added with a gradual increase to a full diet without choice. Patient is kept in bed with encouragement and re-education as to habits, for a period of 6 or 8 weeks, and at the end of this time we may expect our patient to be free from the trouble, to have gained 20 or 30 lbs. in weight and ready to be discharged cured.

OPERATIONS FOR COMPLETE REMOVAL OF THE MAMMARY GLAND FOR MALIGNANT GROWTHS.

BY R. S. CATHCART, M. D., Charleston, S. C.

The fact that malignant disease can be cured by early and thorough surgical treatment, should be of interest to the medical man as well as the surgeon. The profession should unite in enlightening humanity to this cheerful truth and it is

our duty to educate the public about malignant disease and its cure. They are entitled to have impressed upon the requirements for the prevention and cure of "cancer" in order to aid them in self preservation. By spreading this knowledge many useful lives will be prolonged and saved from years of terrible suffering.

*Read before the Surgical section of the South Carolina Medical Association, Summerville, April 22, 1909.

The inherent dread of "cancer" that exists in the lay mind should make education concerning it easy and effective, for instance, what female to-day would hesitate one moment in having a small lump removed from her breast, though it does not or never has given her inconvenience and its discovery was only accidental, if she knew that ninety per cent. of all lumps in the breast of women past the age of thirty years are or will become malignant?

We should conduct the same form of campaign in educating the lay mind in regard to the cure of "cancer" as was done in regard to the necessity for early operation in appendicitis and as is being conducted to-day about the prevention and cure of tuberculosis. I do not claim the greater importance of this education over that of its sister devastator, tuberculosis, but it is of far greater import to the world at large than appendicitis. We all know that some cases of appendicitis may and do get well without operation and it is a plainer fact that neglected or late operations in cancer cases, lead only to inevitable and loathsome death.

Dr. Geo. W. Crile in his learned address delivered before the American Medical Association in June, 1908, on "The Cancer Problem" estimates that there are approximately "80,000 cases of cancer at this day in the United States and over a million cases in the population of the world." His further statistics show that "one woman in eight who reaches the age of thirty-five years dies of cancer" and also that "post mortem statistics of hospitals show that cancer is found in one in twelve autopsies." In the fact of these appalling statistics, considered with one's own limited experience, is it not enough to stimulate the mind to work in this field? Crile from his experiments gives the hope of two new discoveries in regard to cancer. One is a reliable diagnostic blood test, hemolysis, this will be valuable especially in cases of internal cancer.

The other is the prospect of the cure or arrest of malignant growths, by the direct transfusion of blood.

I cannot add anything new or original to this subject and my paper has only

for its purpose to emphasize and reiterate facts in regard to malignant disease of the mammary gland and a brief consideration of some of the various operations that have been employed for its complete removal.

The mammary gland is the second most frequent site of "cancer" in women, both sexes considered, it is third the uterus and stomach being the only organs more frequently affected.

If there are over 80,000 cases of cancer in this country, the third most frequent site being the breast and ninety per cent of all lumps in the breasts of women past the age of thirty years are or will become malignant, what plainer duty have we to women so affected, in the absence of specified therapeutic measures, than to advise and insist upon an immediate operation for removal of these lumps, even if no larger than a pea? Many cases at this time will be reached at the pre-cancer stage, and the simple removal of the neoplasm with its capsule will be sufficient. The magnitude of the operation and the unfavorableness of the prognosis increases with the length of time of delay.

The vast majority of these cases are seen too late which is due to several causes. The time which elapses before the patient notices the tumor. Failure on the part of the individual to seek advice or make known to her physician the progress of the tumor immediately on detection. Delay on part of physician, after being consulted, in advising removal. Delay means that the time for early and complete removal is past and with it diminishes the prospect of a cure, even with the most skilled surgery.

It is wrong to keep these cases under observation with local treatment until the true condition or development of complications forces an admission of neglect. The medical man or ultra-conservative surgeon who advises, at the present time, delay for further symptoms to a woman with a lump in her breast, argues himself ignorant and should meet with the severest censure.

It is a fact that "cancer is an entirely curable disease when situated in an organ or tissue which is of itself removable without causing death, provided it

has not extended beyond its immediate or primary lymph efferents, which are also completely removable. The symptoms of cancer of the breast as have been given in some text books and as we were formerly taught at college, such as pain, retraction of the nipple, enlargement of the lymphatic glands, cachexia, etc., are not symptoms but complications. This faulty teaching has been responsible for the late coming of many cases to surgery and consequently has added to the number of recurrences, metastases and mortality.

Recurrences and metastases are responsible for the great dread that the people have of operation for the removal of cancer, which unfavorable results occurred in some friend or relative of the individual, whose case was operated on at an advanced stage. This will be corrected when men refuse to operate on late cases, unless it is distinctly stated and understood before hand that surgery is attempted in these cases only as a palliative measure to prolong life and offers little or no hope of a cure.

The people must know that there is a time at which all cases of malignant diseases of the breast are curable. The more general this knowledge becomes the less hesitancy will be offered by those victim so afflicted, and they will readily avail themselves of the only help that affords permanent relief, which is an early and complete removal. The degree of benefit offered by surgery depends primarily on an early diagnosis and an immediate operation. Delays mean a hopeless suffering for life. "Surgery of the past was incomplete operations in early and therefore favorable cases."

The greatest boon to this class of surgery is the freezing microtome, by its aid with a competent pathologist, we are able to get immediate microscopic sections for examination, which reveal in a few minutes the character of the case, enabling us to make decision at once as to the nature and extensiveness of the operation demanded. It is wrong to cut section from supposed malignant growths for microscopic examination, except at time of operation, unless the growth is on the surface and nature's barriers have been broken down by ulcer-

cation. If there is no ulceration and the growth is beneath the surface, for instance, in the breast without skin involvement, an incision in the tumor for sections, no matter how small the incisions, and leaving them so for several hours or days without further treatment is unsurgical and unscientific.

Unsurgical because it breaks down nature's barriers and subjects healthy tissues in the neighborhood to the danger of extension of the malignant process. Unscientific because non-malignancy of the section removed is not proof of the absence of malignancy.

Extension of malignant disease is through the lymphatics. This is the key note to the successful termination of all operative procedures for cancer. In fact according to Mayo "practically all of the advancement of modern surgery of cancer, has been through a thorough study of the areas of lymph distribution involved in any malignant focus."

The lymph vessels accompany the arterial system and it varies in extent and character according to location. Interspersed in the course of lymph vessels are found groups of glands, these from their structure act as filters to all fluid that passes through them. It is here that the cancer cell is checked, later overpowers the gland and develops in its outer layers. On this account it is necessary to remove certain definite gland fascia areas at the time of the original malignant growth.

The lymphatic system like the arterial undergoes changes with the age of the person. There is a general atrophy or disappearing of it which renders it less active and consequently dissemination through it, slower. It is for this reason that operation for malignant disease in old persons offer a better prognosis, the younger the subject the more unfavorable the outlook. The percentage of metastases and recurrences decrease with each decade of life.

There are six routes of lymphatic distribution from the mammary gland.

First and most common in the axillary region.

Second in the neck over and under the clavicle.

Third, anterior thoracic glands through

lymphatics that return with the intercostal vessels.

Fourth, posterior thoracic glands involved by the lymphatics of the internal intercostal muscle. This extension is almost inevitable when the gland is fixed to the chest wall.

Fifth, across the chest of the other breast.

Sixth, down the epigastric fascia into the abdomen.

After complete operation for cancer of the mammary gland there occurs frequently edema of the arm, this is to be expected on account of the removal of the lymphatics. Some cases are more marked than others and continue for a longer period. This swelling usually subsides in the course of a few weeks, when nature regenerates the lymphatics and circulation through them is re-established.

There are certain conditions that occur in cancer of the mammary gland and when they are present they are positive contra-indications to operation.

1st.—Fixation to chest wall.

2nd.—External axillary involvement when all structures are fused.

3rd.—Pigskin edematous lymphatics over the breast signifying that all routes of lymph return are blocked. (Lymph adenoma of the skin, and means that the case is at least six months old).

4th.—Multiple shot-like nodes in the skin. Commonly seen after osteopathic or massage treatment, which bruises the vessels and spreads the cancer cells.

5th.—Suppuration of the growth itself.

6th.—Cachexia.

In the various operations that have been devised for the complete removal of the mammary gland for cancer, there are certain points of technique that are applicable to all and facilitate the work greatly.

Before operation, on account of the difficulty in rendering the crease below the breast aseptic, it is well to wipe this fold off with iodine.

The arm should be at right angles with the body, the forearm flexed in an upright position and tied with a roller bandage to an Edebohl's stilt. This holds the hand, dispenses with an assistant and

puts the arm in an easy position for dissection of the axilla. The work in the axilla should be done first. This was Kocher's idea and has many advantages. It is the most tedious and delicate part of the operation and is done while the operator is fresh. All vessels are secured in the beginning, at the trunk, which results in the having of hemorrhage and the use of half as many artery forceps, as there is when the operation is done from the center toward the axilla, when of necessity the same vessels are cut several times.

The incision should be shelving and at least two inches from the margin of the growth.

The dissection of the axilla should be begun by snipping and separating the gland tissues along the axillary vein and working downward to the chest wall.

All superficial and sensory nerves can be cut but the long respiratory of Bell (external and posterior thoracic) and the nerve to the latissimus dorsi (long subcapular) should be saved.

Dissection is done with ease and less damage by using dry gauze on the index finger and occasional snipping and spreading with probe pointed scissors.

In removing the great pectoral muscle its clavicular portion may be left because it has a separate nerve supply and does not interfere with the removal of the gland bearing tissue. It covers the vessel line and assists in maintaining the movement of the arm.

The pectoralis minor should be removed with the tumor mass and the fascia harboring its gland. This will allow removal in one unbroken piece, from the axilla, to the attachments to the chest wall. By removing the gland last the chest wall is kept covered, which avoids chilling and exposure of a large raw surface.

If the lymphatics are found to be involved only in the outer axillary region the prognosis is more favorable than when involvement approaches or is under the clavicle. If under the clavicle the case is extremely unfavorable. The reported percentage of complete cures is extremely small when glands are palpable before operation. Over eighty per cent of cases alive after three years,

show that there was no palpable glands in the axilla at the time of operation. The surgeons of the largest experience state that they have never had a case without recurrence when the supra-clavicular glands are involved.

As a rule dissection is not carried into the neck unless the glands in the axilla are involved.

The glands in the supra-clavicular region may be examined without extra incision in the neck by passing the finger under the clavicle about where the axillary vessels pass.

Glands may be felt in this way, when no enlargement could be determined through the skin. With the little or forefinger the supra-clavicular space behind the sterno-mastoid muscle can be thoroughly explored.

In operations for removal of malignant growth utmost care should be exercised in handling cancer tissue, in order to prevent disseminating cancer cells beyond the operative field. Incision should be made wide of the diseased area and the knife must never touch cancer tissue. Crile says, "rough surgery constantly defeats itself. Pathologic thoroughness and gentleness added to a perfect surgical technique have been rewarded by so many cures that the profession and then the public gained confidence in the surgical treatment of cancer."

Drainage is most important in these cases, where there is a sacrifice of so much lymphatic tissue. Spiral rubber drains including strips of gauze are the best. Two such drains should be used through stab punctures, one coming out posterior from the outer axillary line, the other on the chest wall below and at right angles to the lower incision. Drains arranged in this way will be effective with the patient either in the recumbent or upright posture.

Tension-sutures, as used by the Mayos are valuable in approximating the flaps. This is the figure of eight suture, starting one inch from the margin of the flap on one side, coming out of the edge of the other flap, re-entering the edge of the first flap, returning coming out one inch from the margin of the second flap. This will approximate the edges of the

flaps and give considerable tension without constriction.

Small scarifications or niches in the skin along, parallel and oblique to the incision will relieve pressure congestion of the flap.

In dressing cases, the arm should be bandaged to the side, leaving the forearm free. The dressing should be changed on the fourth day, drainage tubes removed and the arm left out. Patients can be allowed out of bed on the fourth or fifth day and should be encouraged to use the arm. A good exercise is to have them comb their own hair on the eighth or tenth day, also encourage them to practice putting the arm in extreme extension above the head, this will help to prevent contraction of the cicatrix.

Although radical operation for the removal of the breast for malignant disease is one of the most extensive operations done in surgery, it has a very low immediate mortality. Various operators report it less than one per cent.

Percentage of cancer death in women, past the age of thirty five years, occurring in Charleston from the year 1903 to 1908.

Year	cancer	mortality	total deaths
1903	16	333	
1904	26	383	
1905	26	338	
1906	19	347	
1907	21	374	
Total	108		1775
	Making 1 in 16.4.		

DISCUSSION.

DR. EARLE, GREENVILLE, S. C.:

The discussion resolves itself into words of commendation for this excellent paper, and the very clear description of the Jackson operation, as given by Dr. Cathcart. The Doctor has very well said that the diagnosis of cancer of the breast should be made at the operation—that immediate operation should be made.

I don't agree with Dr. Cathcart that the freezing microtome gives much more satisfactory results and should be used

instead of cutting a section from supposed malignant growths for microscopical examination. With a patient of mine I should remove it. The point which the Doctor made is very good about the flap being drawn up high. If it is drawn up, a woman will have no trouble about raising her arms. The method of operation is a very comfortable one of keeping the arms akimbo. I would not keep my patient in bed as long as Dr. Cathcart. I let them get up as soon as they feel like it. There is practically no hemorrhage; there is only a slight oozing and in from 4 to 48 hours a woman can get out of bed, and at the end of a week she can be up and able to comb her own hair.

DR A B KNOWLTON, COLUMBIA S C:

Work will tell; there is no doubt about that, and in this case it has told magnificently, and I wish to thank Dr. Cathcart for this excellent paper.

We have a number of good operations for the removal of cancer of the breast. Dr. Cathcart has illustrated them handsomely. What do they present to our minds? They are the tragedy of surgery. Who are the victims of this tragedy. The mothers—the full blown roses of humanity.

For years cancer has been regarded as absolutely incurable. On the contrary, it is curable, and I say this without fear of contradiction by any well informed man. We have many intelligent

men who are not well informed on this subject; it is an absolutely curable malady, in spite of the teachings of years. Every tumor of the breast means removal—immediate removal, for recovery. You can't cure it any other way.

DR. R S CATHCART CHARLESTON S C:

I want to thank you gentlemen for your very kind criticism. I agree with Dr. Earle to a certain extent that if you take all cases of lumps in the breasts of women, and made complete amputation of the breast, humanity would be better off.

But, if you take young women of the child bearing age, who have a simple benign growth in the breast, then I think it would be wrong to subject that woman to a total amputation of the breast. The microscope is the only thing we have got to go by, but I grant that without the aid of the microscope and freezing microtome, if all the breasts with lumps in them were amputated, humanity would be better off than to wait for late symptoms or complications.

When Dr. Knowlton referred to the lymph node, I think he got that mixed with the remark I made about lymph adenoma of the skin over the breast. When you have that skin, it means the case is six months old. You can get the most virulent forms of malignancy without it.

NEWS NOTES.

Dr. Wingard Bereaved.

The aged father of Dr. J. J. Wingard of Lexington, Judge S. P. Wingard, died on June 22. Judge Wingard was 83 years old and was held in high esteem. He was held many offices of trust. State Senator, Judge of Probate, Clerk of Court, Sheriff, etc.

A dispatch tells us that Dr. Edward R. Stitt, a native of Rock Hill, one of South Carolina's representatives in the navy has been ordered to the command of

the naval hospital at Ganacao in the Philippines. He has been on duty as instructor on tropical diseases in the hospital in Washington.

The press dispatches tell of a narrow escape by Dr. W. W. Fennel, of Rock Hill, who was caught, one night in the last days of June, in a stream deeper than he calculated on. He lost everything in his buggy, including his instrument case, but managed, with the help of his driver, to save the horse and buggy.

MINUTES OF THE SCIENTIFIC SESSION SOUTH CAROLINA MEDICAL ASSOCIATION,

Summerville, S. C.

WEDNESDAY MORNING APRIL 21

Association called to order by the President.

Divine invocation by the Rev. F. W. Ambler, Summerville, S. C.

Almighty Father, who called St. Luke, the Divine, to be a physician both of the body and of the soul, and thereby set the seal upon the practice and profession of medicine, we humbly invoke Thy blessing and Presence upon this convocation of physicians assembled here in Thy Name. Guard them, we beseech Thee, from all error and prejudice and grant that the true purposes of medicine may be advanced and promoted by their consultations, throughout all time.

Direct them, Oh Lord in all their deliberations, with Thy most gracious favor, and further them in Thy continual help, that in all their works begun, continued and ended in Thee they may magnify Thy Holy Name, and finally, by Thy Mercy, obtain everlasting life, through Jesus Christ our Lord, Amen.

ADDRESS OF WELCOME

Lagare Walker, Esq., Summerville, S. C.

Mr. Chairman, Ladies and Gentlemen of the Association:

We bid you a most cordial and hearty welcome to Summerville. What more can I say? How enlarge this expressive word of cheer and satisfaction to the stranger, and, even more so, to the friend? You are my friends, for we know no strangers here. I bid you a most hearty welcome.

Custom, however, has decreed that something must be said, for, though we are friendly, we are not Quakers, nor are we holding a Quaker meeting; and there-

fore, as we all do, I bow to her decrees; and if, ladies and gentlemen, I should take a little longer to run my course than the Reverend gentleman who has preceded me, I trust that you will recall that I am only a "Walker" whereas he is a very good "Ambler."

Now, gentlemen, my distinguished friend, Dr. Carroll, handed me a prescription some time ago that differed from any prescription that I have ever seen. It was so curious that it seemed to me not exactly ethical, and not being a medical man myself, I thought I should expose it to the Association. In the first place, I did not ask Dr. Carroll for this prescription; it came to me voluntarily, which was very surprising. I paid nothing for it, which was very much more surprising; and when I came to examine the prescription, I found that it was not even for me, which was most surprising.

This prescription was not to be compounded by a druggist nor yet administered by a trained nurse and we have good ones in Summerville, but looking at it I found that I was expected to act in both capacities.

Now, gentlemen, with apologies to my friend, I will read this prescription:

"R-X—For the South Carolina Medical Association.

Hello! (Cordial)

Humor (Essence, if possible, otherwise dry)

Nonsense (any kind, except stale jokes)

Mix in equal parts with a little sense, to form a compact mass, and apply on April twenty-first to ears of patients for fifteen minutes, unless drowsiness sooner appears."

Now, gentlemen, you see I am following the advice of my physician, I propose to administer it, if possible, and I trust it will not prove an unpleasant dose to the patients.

We all know that the most pleasing

welcome that can be given is spoken in the language of the person addressed. For instance, "bon soir," means much more to the Frenchman away from home than "hello!" and "hello," I am told, sounds very sweet to the ears of the American abroad. Knowing, therefore, that man likes his native lingo best, I tried to find the lingo of the doctor, and, gentlemen, I found it! I found it! So this little program, which seems so inoffensive to you, sounds very queer to me, because I am a lawyer. When I saw for instance, CASE No. 5 Surgical Docket "Anaesthetics; Chloroform or Aether," and No. 19, Surgical Docket, "Peripheral Operation for Tic-Douloureux," and No. 2, Surgical Docket, "Post Pharyngeal Abscesses," I thought I had struck a language which you would know something about. But, gentlemen, I cannot speak your language. It is beyond my comprehension. I went a little further, and here is what I struck: I find Dr. Baker, of Charleston, is to speak to you about "Similar Symptomatology in Chronic Appendicitis," Dr. Jervey, of Greenville, about "Ophthalmia Neonatorum," Dr. Watson, of Columbia, about "Septic-Endo-Carditis," and gentlemen, Dr. Durham's language is perfectly awful, all in one word, a marvel of letters. I will try and read it, if I can: "h-y-p-e-r-c-h-l-o-r-h-y-d-r-i-a." I never studied at college anything that sounded like that, except Latin and Greek mythology. Now, I like to be natural, and I would like to speak to you in your language. I might, for instance, call a fly names. I might call him very bad names indeed, if it were in my coffee, or breaking up my morning naps; but, gentlemen, I never, in my wildest dreams, thought of calling it "Musca Domestica", and that is what my friend of Columbia calls it.

I see my distinguished friend and townsman, Dr. Porcher, is going to tell you about "Anterior Displacements of the Triangular Cartilage." I was very much in hopes he was going to tell you about a very peculiar eye case he had at one time. But in as much as he does not expect to do so, I will try to tell it for him. Bear in mind I do not vouch for the veracity of this story, nor yet will I risk my reputation in defense of it, but

the story goes that some time before Dr. Porcher moved to Summerville, a gentleman called on him and asked him to examine his eye. He made the examination and said the disease was a very serious one gave it a very long name, and it very much disconcerted his patient, who asked him how long he would have to treat it. He was told that he would have to come there every day for two weeks, to which the patient replied: "Doctor, I am very busy at present, and cannot possibly come, but if it is just the same to you, I will leave this eye with you. It is a glass one, and when you finish the treatment, I will come back for it." I never heard the outcome of it, but I think it occurred just before my friend left Charleston for Summerville. (Laughter)

My friend, Mr. Carroll, looks as if he expects me to get off a joke on him, and I did not expect to do so, but you note he follows me on this program, and he told me yesterday if I got off anything on him to "look-out" and knowing that "he laughs best who laughs last," I determined that I would not tread upon his toes. Therefore I leave him out.

I see my genial and rotund friend here and cannot pass him without some remarks. He told me he was going to reduce his rotundity. That was before Mr. Taft came in. I gave him a very fine pointer, because he had just taken up hunting. I told him, however, "Doctor that dog has a little too long a tail: You will have to take off an inch and a half of it, but in as much as the hemorrhage is excessive at times, you had better perform that operation yourself." Some weeks later I met Dr. Lee, followed by what appeared to be a nice little fox terrier pup, with a little stump of a tail. Imagine my surprise when I learned it was my fine pointer. The Doctor had carried out my instructions to the letter, but he had measured from the wrong end of the tail!

Gentlemen, I trust you will forgive that tale, it is but a short one.

We have a town legend here that runs somewhat as follows:

"Everybody that drinks from the town pump must return."

I know that our distinguished Attorney General has not yet gotten out any in-

junction against drinking waer, and I trust each of you, ladies and gentlemen, will drink copiously. You will find a dipper there, and the water is guaranteed to be pure and free from tadpoles.

Now, I want to refer to this prescription, to see if I have carried out its directions, I have said a cordial and hearty "Hello!". I have attempted to be a little "Humorous;" I have talked a great deal of "Nonsense," and the only other ingredient being a little "Common-sense," I think I can best show that by bringing my remarks to a close.

(Applause)

ADDRESS OF WELCOME.

DR. F. JULIAN CARROLL, SUMMERTON.

Mr. President-Ladies and Gentlemen:

In Mr. Walker's remarks he took occasion to mention the fact that I had prescribed for him and that he had not paid for the prescription, which he called very, very strange. If he had paid for the prescription, I think it would have been astounding. I am Mr. Walker's physician. (Laughter).

Now, as to his bringing me up for violating ethics, I want to violate ethics still further, and tell you a story, which possibly ought not to be communicated.

Some time ago Mr. Walker was quite sick and sent for me. His wife was very much stirred up. She said: "Doctor, I really don't know what to do. Mr. Walker is wandering in his mind." I said "Don't worry at all madam; he cannot wander very far." (Laughter).

Now, at one time I had the honor of being mayor of this town, and it was my privilege—probably my duty—it wasn't much of a privilege—to try all classes of criminals brought before me. Mr. Walker was the city attorney. On one occasion a negro was being tried for stealing and the gentleman who prosecuted the negro was there as a witness. In the cross examination of this gentleman it was brought out that this negro had stolen on several previous occasions and still the gentleman had not discharged him. Mr. Walker said in menacing tones: "Do you mean to say that you keep in your employ a person you

know to be dishonest?" The gentleman replied "Yes sir; I frequently employ a lawyer." (Laughter.)

And on another occasion Mr. Walker rather got it back on me. He and another attorney were before me and had been talking about an hour on legal points. First one and then the other would quote Coke or some one else. Finally Mr. Walker got up and started quoting Blackstone. I said "I don't want to hear anything about Blackstone, I don't care what he thinks." Mr. Walker replied, "May it please your Honor, I don't want to try to prove you wrong; I just want to show you what a darn fool Blackstone was." (Laughter.)

Now gentlemen, it is my honor to-day to follow a lawyer. This is rather contrary to my usual custom. It has been my unfortunate experience, in my professional capacity, to be very frequently followed by lawyers, also in their professional capacity; but to-day Mr. Walker and myself engage in the much more pleasing, though less remunerative practice, of welcoming you here, and not mournfully taking a pleasure in settling up your estates. We feel that it is our great pleasure and privilege. We feel that in welcoming you to Summerville that we have not any occasion to indulge in vocal pyrotechnics as to the beauties of Summerville. She speaks for herself, language so flowery that the most choice assortment of adjectives the dictionary affords would fall far short of doing her justice.

We know, and are willing to acknowledge, that Summerville is not the original Garden of Eden, but we wish to call you attention to the indubitable fact that the good Lord himself never attempted the building of Summerville until after he had gotten his hand in on that celebrated garden-spot of the earth.

We are willing to acknowledge that there are a great many things in that spot in which Adam and Eve started the taking of things through the alimentary canal, and otherwise starting the raising of Cain: but we want to call your attention to this fact: that nowhere in the Bible is it mentioned that they possessed in that place either an experimental, or

a successful tea farm. And, my friends we want to say we believe in Summerville that we have the best climate in the world. Indeed, I verily believe there is more climate to the square inch in Summerville, than in any other place in the world. The fact is, in Summerville, whenever we get up against any opposition, no matter how high, how do we overcome it? Why, we climb it, gentlemen. Indeed, several of our small boys are such great climbers that they can outclimb any other climbers in the universe. And you might ask, my friends, in this beautiful climate, which cures everybody as soon as they come here, why is it we have so many doctors? I want to tell you we are here for our health.

Some of the doctors in Summerville have undertaken as a side issue, the raising of hogs. Some one asked one of them the other day why he raised hogs. He said, "I will tell you; the hog is the only patient I ever had that I could kill first and cure afterwards." (Laughter.)

Now Summerville being such a famous place, has often been visited by many famous men. Some time ago the Hon. Teddy R. visited this town, and was entertained by the hospitable founder of Pinehurst. He had luncheon, at which he had Shepherd's tea. This rendered him very popular in this vicinity. Shortly afterwards he had another luncheon—not in Summerville—at which he had "Booker T." and since that time he has not been nearly so popular which goes to show what comes of crossing your t's. (Laughter.)

The fact is, gentlemen, the President of the United States has to be very particular as to the brand of teas that he selects. Around here green tea is much more popular than black.

Not so very long ago Pres. Taft was in Summerville, and entertained at this hotel, and was heard to lament the fact that he had been elected President of the United States, because holding this office rendered him ineligible for the office of Mayor of Summerville.

A great many people, scoffers, at once said that this was only "Taffy," but be that as it may, however many things Summerville has to be proud of, I want to say to you that there is nothing that

has rendered Summerville more satisfied, or made her more proud, than the fact that the South Carolina Medical Association has elected her as its meeting place.

Gentlemen, in the name of the Dorchester County, and the Charleston County Medical Societies, I welcome you to Summerville. (Applause.)

The President:

Gentlemen, it will be impossible for me to attempt to reply in kind to the cordial and spicy addresses of welcome that we have received this morning, and I will not attempt to do so.

We have, I think, drunk rather freely since we have been here, and, with Dr. Shepherd's assistance we will endeavor to continue to do so; but I have not yet seen the town pump, and I don't much care whether I see it or not.

I do not think that there will be any trouble in inducing this aggregation to return to Summerville on subsequent occasions, even though we do not find the pump.

Thank you, gentlemen, for the welcome extended. We will avail ourselves of it.

Dr. Shepherd, who is present in the hall wishes to make an announcement to the Association.

DR. SHEPHERD:

I hope to have the pleasure of giving you a talk on tea (you have heard a good deal already upon the subject to-day), tomorrow afternoon at five o'clock at Pinehurst, which is only a quarter of a mile from here. It will give me pleasure to see you all there, and to give you a little talk on what constitutes the prime industry of this town.

THE PRESIDENT:

I will say to Dr. Shepherd in behalf of the Association that we will take great pleasure in visiting Pinehurst, and will enjoy the reception there given.

Dr. Kollock presented the following gentlemen to the Association and offered a resolution that they be accorded the privileges of the floor, stating that perhaps the one in whom the Association took greatest interest, because he came from our midst," is Dr. Mazyck P. Rav-

enel, formerly of Charleston, now of Madison, Wis., Dr. Bransford Lewis, of St. Louis, Dr. J. Adams Hayne, U. S. A., Greenville, Dr. L. Cofet, Past Assistant Surgeon, of Washington. Dr. Mazyck P. Ravenel, Madison Wis.

The President's Address was then delivered by Dr. S. C. Baker, Sumter, S. C.

(Published in May Journal.)

At the conclusion of the President's address, Dr. Walter Cheyne, Secretary, took the chair, and recognized Dr. Kollock of Charleston.

Motion by Dr. Kollock that the thanks of the Association be returned to the president for his excellent address, and that a committee be appointed to consider the recommendations which it contains. Seconded by Dr. Carroll, and carried.

Committee appointed, Doctors Dwight, Kollock and Taylor.

Paper read by Dr. Mazyck P. Ravenel, University of Wisconsin "Sources and Modes of Infection in Tuberculosis" DR. NEUFFER, OF ABBEVILLE:

I move that the thanks of this Association be extended to Dr. Ravenel for his most instructive and entertaining address, and we wish to express to him our pleasure in having him with us.

Motion carried by rising vote.

DR. WALTER PORCHER, CHARLESTON:

I would like to add a small mead of praise to my friend, Dr. Ravenel. On account of his first name being spelled with a "y," he has been pronounced of Polish origin. I desire to protest against that, and I would suggest that a tag be put upon him, labeling him as the ex-secretary of the South Carolina Medical Association.

I have enjoyed his address and only regret that he did not say something concerning the use of tuberculin. I know he has had vast experience along that line and I am sure the Association would be pleased to hear him express his views in regard to this.

THE PRESIDENT:

Dr. Porcher and gentlemen: The hour has now arrived for adjournment and a little later this afternoon we are going

to have the report of the Anti-Tuberculosis Committee, and I think remarks of that kind could very appropriately be made then, and we will be very glad to hear from Dr. Ravenel anything that he has to say, at that time.

Motion by Dr. Carroll that a recess be taken until three o'clock. Carried.

WEDNESDAY EVENING:

GENERAL SESSION.

Convention called to order by the president.

Paper by Dr. Bransford Lewis, St. Louis, Mo., "Uro-Genital Tuberculosis with Especial Consideration of Tuberculosis of the Bladder."

(See June Journal.)

Report of Tuberculosis Committee—read by Dr. John L. Dawson, State Chairman.

DR. WHALEY:

Mr. President, can any other business be brought up at this meeting?

THE PRESIDENT:

No executive business.

DR. WHALEY:

Every year there is some wrangle by whom honorary members should be elected. Heretofore it has been done in the general meeting. The meeting at large is supposed to elect them, and this is the meeting at large. It is a matter that belongs to the Association at large.

THE PRESIDENT:

I think it is unconstitutional. The constitution requires that the President, for instance, be elected by the House of Delegates, and so I understand all other elections should take place in the House of Delegates. If you desire to appeal from this decision, it will have to be done to the House of Delegates.

DR. GUERRY:

I think you are right about that. We have elected so many members I think the honor has passed away from it.

(This question was later brought up in the House of Delegates, the decision of that body being that it was the duty of the House to elect honorary members.)

Motion by Dr. Guerry that adjournment be taken until 8:30. Carried.

CLINICAL DEPARTMENT.

GUNSHOT WOUND OF ABDOMEN

Upwards of Thirty Five Perforations of
Small Intestines With Recovery.

By T. P. WHALEY, CHARLESTON, S. C.

W. J., Age 18, of Florence, S. C.

History: Patient was seen four hours after the accident and gave the following history, that he had been accidentally shot in the abdomen from in front diagonally to the right, 7 shot entering to the left towards the left side, said cartridge containing numerous No. 5 shot. Patient's condition fair, suffering slightly from pain and some shock. Not a particularly robust individual. Examination of the abdomen revealed numerous gun shot wounds entering diagonally from the left of the median line below the umbilicus, numerous other shot entering to the right of the median line; some of which barely grazed the skin and some had penetrated the muscles. There were other small shot wounds in the neighborhood. The patient was vomiting freely when first seen and was ejecting a large meal which he had partaken of about ten minutes prior to the accident. Patient was prepared for laparotomy in the usual manner with the exception that the enema was omitted. He was given large quantities of salt solutions by the mouth which he immediately ejected thus washing out the stomach as thoroughly as possible without resort to the tube. Ether was administered and the patient rapidly succumbed to its influence. A more thorough examination of the wounds while the patient was under the anesthetic made it very doubtful if any of the shot that had entered to the right of the median line had per-

forated the peritoneum. It was more than probable that the seven shot which had entered to the left of the median line had perforated the peritoneum it was therefore determined to open the abdomen in the median line. An incision was accordingly made from the umbilicus to the pubis; upon opening the abdomen it was immediately seen that the peritoneum had been performed and the intestine also. Food and fecal matter together with considerable bloody serum was found loose in the abdominal cavity. The first wound disclosed was found in the jejunum here and there were several wounds together, the majority of them, however, were separate and distinct. After 35 perforations had been sewed up with the Lembert suture (with fine silk as the material) On account of the grave condition of the patient further counting of the perforations was out of the question. The last half hour on the table the patient was kept alive with intravenous infusions of normal saline solution. The intestines were all removed from the abdominal cavity, the cavity sponged and irrigated and the intestines sponged and irrigated and the outer surface of the abdomen and the abdominal cavity were again sponged and irrigated; the intestines were returned to the abdominal cavity, a small drain inserted in the lower end of the wound and the wound closed with silk-worm through and through gut sutures in order to hasten the operation as much as possible. A suitable dressing was applied and the patient returned to his bed. An uninterrupted recovery resulted.

My chief reason for reporting this case is that so far as I am able to ascertain this is the largest number of perforations of the intestines ever recorded, with recovery. After a diligent search of the authorities I am still convinced that this is the case.

Another reason for reporting this case is that the technic of irrigations etc as

outlined above has given excellent results in two of three cases. Two whites and one darkey. While the cases recorded are few in number the percentage of 66 2-3 of recoveries is certainly worthy of notice. The case that succumbed was an eleventh hour operation and had well developed peritonitis before operation.

GENERAL PERITONITIS.

DR. S. E. HARMON, COLUMBIA, S. C.

A little girl eleven years old was taken sick Saturday night, April 17th, 1909, with pain in abdomen; was worse on the 18th. Family physician was called in on the 18th, and saw her again on the 19th. He diagnosed appendicitis. I saw her Tuesday, the 20th, at 1 p. m.—nearly three days after the commencement of the attack. I concurred in the diagnosis and advised immediate operation; which was consented to. She was taken to the Columbia Hospital. When she reached the Hospital pulse was 140, temperature 101, abdomen tense, and there was nausea and vomiting. I operated at 7 p. m. on the 20th; incision was made over McBurney's point. On getting into the abdominal cavity I found it filled with pus, the entire peritoneum soiled. The appendix was found and removed; there were two perforations in it. The abdomen was wiped out as well as possible. Gauze drains were placed through stab wounds into each kidney pouch, and into the pelvis. The incision was left open and drained. The patient was put to bed and placed in Fowler's position with instillation of normal salt solution per rectum by Murphy's method. The morning after the operation, pulse was 120 and the patient fairly comfortable. She ran a very rocky course for about four days, but improved slowly all the while. Drainage removed on the 6th day and she did finely until May 6th, 16 days after operation. On the morning of May 6th she complained of severe pain in abdomen, with nausea and vomiting, rapid pulse that reached 150 during the day.

We made a diagnosis of intestinal obstruction due to adhesions. I opened her up for the second time May 7th, at 3 p. m. Abdomen opened in median line, broke up all adhesions and released three bad kinks in small intestine. The incision was closed, patient put to bed in no worse condition than when she went to the table. She went on to a rapid and uneventful recovery, and was completely well in 4 weeks from first operation.

REPORT OF A CASE OF ASTHENIC GASTRITIS

Complicated With Spastic Constipation,
The Result of a Weak Abdominal Wall.

DR. F. M. DURHAM, COLUMBIA, S. C.

The object of this paper is to call attention

- To a weak abdominal wall as a common cause of gastro-enteric disorder, and the proper treatment for such cases is to strengthen the belly muscles. This will give a healthy tone to the gut, and hold the various organs in their natural positions. However, as the gut in spastic constipation is inflamed and supersensitive abdominal massage is contra indicated and the muscles should be strengthened by exercise and a fattening diet. Abdominal massage is indicated in atonic constipation.

- The diet should be bland, relaxing and chemical in its action rather than mechanical. The mechanical diet is best suited for atonic constipation.

- The oil enema is relaxing, soothing, mechanical and chemical in its action.

Mr. W. came to my office last November. He stated that he had been in bad health for the last ten years. His trouble began with a feeling of fullness in the stomach and constipation. He would take a purgative and that would relieve him for a while. For the last two or three years the constipation has become worse, and the purgatives have failed to

benefit him.

Present condition: Complains of obstinate constipation with meteorism, pain and shortness of breath, and has had a few fainting spells. At times he passes great quantities of gas which frequently relieves him. When the constipation is severe it always increases meteorism and pain. Purgatives, unless in very large doses, do not relieve constipation and always produce severe griping. He is nervous, does not sleep soundly, and often wakes panting for breath.

Physical Examination: He was anemic and emaciated as he had a food-phobia and had lived on a very limited amount of milk, toasted bread and raw eggs. His teeth were fairly good heart's action rapid, lungs normal. The abdominal walls were thin and soft, some gastrop-tosis, the colon was easily palpated, was small and tender, about the size of a finger. On digital examination, the anal muscle was tightly contracted, rectum small and contained a few round hard lumps of foeces resembling marbles. He was given the Boars-Ewald test breakfast which consists of 60 to 70 grammes of dry wheat bread and 400 c. c. of cool water. One hour later it was extracted from the stomach.

Examination of extracted contents was as follows:

Contents—lumpy.

Solids—in excess of fluid.

Oder and color—normal.

Mucus—excessive.

Free H. Cl.—Neg.

Total Acidity (combined)—10.0

Organic Acids—negative.

Lef'fement & pepsin—diminished.

Starch digestion—increased.

Examination of stools and urine:

Stools were of small calibre long, hard dry, composed of marble like segments and contained considerable mucus. Urine was negative except indican was in excess It required fifteen drops of a chlorate of potash solution containing one per cent. of available chlorine to decolorize five c. c. of urine; Indican in five c. c. of normal urine is decolorized by from one to three drops of the above chlorine solution.

He was placed on the following treatment:

Gastric lavage every morning. His first prescription contained in each dose, Carbolic Acid gtts 1-2. Dilute Hydrochloric Acid gtts Glycerole pepsin qS with directions to sip slowly one teaspoonful in half a glassful of water half hour after meals. Diet consisted of milk, cream, toasted bread, rice cooked until soft, the finer cereals, scraped beefsteak or roast, tender veal, and one to four teaspoonsfuls of olive oil before breakfast. He was instructed to eat slowly and thoroughly masticate his food.

After two weeks of this treatment, gastric analysis showed some free HCl and diminution of mucus. Urine contained less indican, appetite better but constipation not much relieved. The Hydrochloric Acid seemed to irritate his stomach, and as the stomach now showed free acid, and appetite better, the medicine was discontinued. Stomach now washed every other day. He was instructed in abdominal gymnastics to strengthen the abdominal wall, as the relaxation of the belly muscles was thought to be the original cause of the constipation. To stimulate rectal peristalsis he inserted a hard rubber cone in the anus when he first awoke in the mornings. The cone remained in the anue until he went to toilet after breakfast. He remained at toilet until bowels acted.

His diet was cream, butter, while bread eggs, small amount of soup, tender vegetables, tender meat, and stewed fruit.

After two weeks of this treatment there was considerable improvement, bowels still sluggish but the stools were larger. The griping was less severe. The cones were now discontinued and four to six ounces of warm cotton seed oil injected high up into the rectum at bed time and retained until morning. This was kept up every night for about one week, then to be used only when constipated. Gastric lavage only when there was a tight or disagreeable feeling in the stomach. His diet increased, only such foods as ferment easily or leave a large residue were strictly forbidden. He gained twelve pounds in twelve weeks. Constipation very much better stools well formed, but still contain some mucus. There is no pain in the abdomen. Abdominal wall some harder.

Diagnosis: The diagnosis of Asthenic Gastric was made from the following findings:

(1) A total Acidity of 10; Normal Acidity is from 40 to 60.

(2) Large amount of mucus.

(3) Diminished activity of pepsin and fermentation.

Diagnosis of Spastic Constipation: from

(1) Constipation associated with pain and meteorism.

(2) Small tender colon.

(3) The ineffectualness of purgatives.

(4) Stools of small calibre, hard, and made up of marble-like segments and rich in mucus.

SOME REFLECTIONS ON PRACTICAL OBSTETERICS.

L.F. H. DRAHER, M. D. ST. MATTHEWS

There is no time in the limits allotted to me to trace the rise, history and development of the obstetric art. As we all know it was for many centuries practically in the hands of ignorant midwives. Doubtless every physician in this association will agree with me that, in proportion to mental concern, anxiety and the more or less distasteful features connected therewith, this department of our professional work is the most poorly remunerative of our whole work. In spite, however, of its drawbacks and disadvantages, there is something wonderfully fascinating about the work to me.

A call from the poorest colored woman, whose case has been adjudged beyond the skill of the average conceited midwife, is rarely turned down, which would otherwise be ignored. In the first place, a woman, however humble, is in great straits too frequently from no fault of her own. In the second place it is out of the ordinary, where calomel and quinine are usually in demand and requires some display of skill and courage beyond the beaten ruts. We all remember that it was somewhat past the 16th century when Peter Chamberlain went to London and boasted that he and

brother, and none other, could excel in difficult labors. After three generations of secret work, their marvelous instrument, the forceps, was given to the world and from then on the pace in the development of the obstetric art has been steady and satisfactory. Naturally, this instrument was greatly abused at first, and frequently is yet. No examiner with the slightest perception and observation but has been impressed with the numerous deaths attributed to mothers and grandmothers from confinement. Many of these died, doubtless from puerperal fever during the first week or ten days of the lying in period, largely due to irresponsible midwives, but there can be no room for doubt that many succumb to the lack of skillful handling of child delivery on the part of regulars. First and foremost, it would seem absolutely essential that an accurate diagnosis of the presentation be made. This must come largely from experience, but can be greatly aided by a thorough knowledge of the practical as well as theoretical principles involved in each case. When this is made, it is presumed that all malpositions will be as promptly remedied as possible. If the labor is tardy, the subject of ergot looms up. I occasionally resort to this drug, but, after considerable experience during the last eighteen years, I use it with decreasing frequency from year to year. It has served me some bad turns and anxious moments, and I am, therefore, suspicious of its virtues except in a most limited and well defined sphere. With multiparous and roomy pelvis, a cautious administration occasionally acts like a charm. But, even here, in a few instances its aggressive tendency was neither consoling nor effective. The *vis à tergo* and the forward adaptation of the maternal parts were too disproportionate. I now use quinine almost exclusively and our friendship is of an increasing warmth from year to year. Fifteen grains are given as a starter and occasionally braced with another five or two during the progress of the case.

While a great believer in the forceps and even more ferocious instruments as required, I am a still stronger believer in nature and her powers for the rank

*Read before the June Meeting of the Orangeburg Medical Society, 1909.

and file. I have sat many a cold night through in humble negro cabins with indifferent fires and comforts, and a bag of formidable instruments lying lazily at my side, because I realized that nature was slowly but effectively rounding out the job allotted to her care. Except in rare instances, it has never struck me as difficult to determine when to interfere. When the pains are nagging and lagging and quinine fails to stimulate; in exceptional cases, with roomy pelvis, after a cautious trial of ergot and the patient's strength is decreasing, with occasional convulsions, the time for folded hands has passed.

I believe that many a grave has received its victim from rank starvation and sheer exhaustion during tedious and tardy labors. When a patient, weak at best is too fagged out for a decent pain but sufficiently indecent to waste her energy, it is poor consolation to her to be told that a major operation is essential after the white wings of the guardian angel are already swooping down upon her.

It has been my fortune, a misfortune, from the point of view to have engaged in practice, all of these operations short of a celiotomy and I have found the danger and mortality largely commensurate upon the stage of maternal exhaustion. They are not peculiarly dangerous *per se*, under proper precautions. It is un-

necessary to add that the child is always sacrificed where one or the other must go. Here, as elsewhere, in our professional work cool judgment and a fair knowledge of the import of symptoms must be utilized.

It is a great crime to destroy a child lightly. It is a far greater crime to destroy a mother from masterly inactivity, and like Micawber hopefully waiting for something to turn up.

A case in point is still vivid after a number of years. It dragged its weary length along with a disgustingly unsatisfactory dilatation of the os and the head still above the superior strait. Finally, to my utter amazement convulsions set in and there was no longer more delay. With branched dilators I opened the mouth of the womb and performed the high forceps operation. The experience of others may not coincide with mine, but I dread these cases as much as any that I encounter.

I may say in closing that there is no more encouraging field for good work among general practitioners than in obstetrics. Our work is fast drifting to hospitals and sanitaria. The poorest now go there for pretty much everything except chill and fever. But with these cases in their acute stage there is no time for specialists. It is root hog or die, and we can achieve our most brilliant results in complicated obstetrics.

Good doses of sulphur internally will prove beneficial in threadworms. But the surest and most effective method is the rectal injection of a strong infusion of quassia. The fluid should be retained for several minutes. The addition of a teaspoonful of common salt to a pint of the infusion is advised by many.—Critic and Guide.

In operating for intestinal obstruction in the colon, the first thought should be to save the life of the patient. This can often best be done by making an artificial anus. Too many patients are sacrificed to the surgeon's zeal to do a complete mechanically perfect operation at once.—American Journal of Surgery.

In surgical shock strychnine and alcohol aggravate the condition.—American Journal of Surgery.

Syphilis stimulates nearly every other surgical disease, and the most virtuous are subject to its ravages.—American Journal of Surgery.

Gangrene of the extremities may be due to senile changes; local infection; mechanical injury to bloodvessels; tumors; diabetes; constitutional infective febrile disease; poisoning; with ergot, lead, phenol, arsenic or tobacco; syphilis; trophic cord lesion; Bright's disease; leprosy; embolism; frost; ainhum; or Raynaud's disease.—American Journal of Surgery.

DEPARTMENT

Of the Society of Medical Secretaries, South Carolina Medical Association.

DR. ALLEN J. JERVEY, Charleston, Chairman.

DR. MARY R. BAKER, Columbia, Vice-Chairman.

DR. L. ROSA H. GANTT, Spartanburg, Secretary and Treasurer.

WHAT ARE THE COUNTY SECRETARIES DOING

Dr. L. Rosa H. Gantt, Secty.,
Spartanburg, S. C.

Dear Doctor:

Can you tell me what the county secretaries throughout the State are doing to make their respective County Societies a success? I believe it was the object of the Secretaries Society that formed at the meeting in Summerville, to get all the Secretaries in the State to co-operate and exchange ideas. This can of course best be done through our Journal and I hope you will be able to have two or three articles in each issue of the Journal from the Secretaries.

To keep the members of your Society interested is a big job and if the secretary is not wide awake to his duty they will find many excuses for not attending the meetings, some say it is too hot, others that the roads are too bad and the worst is they are not interested in that last subject never having had a case. Well I suppose these are all good excuses for they answer the purpose in most counties.

Last month I tried to make our meeting interesting by having a lawyer and a dentist on the program. This worked well and I would advise other secretaries to try it. At our August meeting we expect to have a big discussion on Pellagra, and Dr. Babcock of Columbia and Dr. Lavender, of Washington, are to be with us.

Now, Dr. Gantt get right after the secretaries and if you can get them to

work we will have good county societies.

Your friend,
C. C. Gambrell, Secty.
Abbeville Co. Society.

THE COUNTY SECRETARY AND HIS DUTIES.

By E. A. HINES, M. D., SECRETARY OF CONEE COUNTY MEDICAL SOCIETY.

The whole superstructure of the State and National Medical Associations has for a foundation the County Secretary. In view of this fact, what a tremendous responsibility rests upon him. To measure up to the requirements of this office then, only the best men should ever be placed therein.

I shall briefly outline some of the qualifications as well as some of the evidences of success.

The best results will be attained by the man who dares to do more than his duty. One of Grover Cleveland's life principles was to go beyond mere duty in service to his country, and the same principle should abide with the Secretary of every County Medical Society. The old adage that "the chain is no stronger than its weakest link" is pre-eminently true of the present organization known as the American Medical Association, which by its magnitude and its achievements for the good of humanity, challenges the admiration of the civilized world. Much of this greatness came after the County Medical Secretary was created, and in no small measure its future usefulness depends upon that officer. Only such men as have an untarnished character, more than the average of general and

medical training, and who have demonstrated in their own work the marks of successful practice, should be chosen to fill this office. Busy men are, as a rule, the most desirable. He should, by all means, be entirely free from "all appearances of evil of the well known petty, jealousy type. He should know, by name and personal contact, every member of the society, and if he then has the above requisites it is highly probable that his county society will be a strong spoke in the great wheel of medical progress.

Some of the opportunities awaiting this type of secretary are as follows: He can add to the sum total of benefits to suffering humanity by urging the members to further study and investigation of disease. He can bring the young graduate early into line, and its very likely that if once started and encouraged for four or five years the habit will be fixed. He can reclaim the middle-aged practitioner in many instances by persistent effort, well beyond the mere duty of a formal invitation to participate in the program.

Often the wide-awake Secretary will witness a veritable miracle wrought in some of these splendid characters whose talents have been hidden for a quarter of a century. The Secretary should not be too absorbed in the work of his office to occasionally contribute a carefully prepared paper to the program, and thus

he will, by example, stimulate others. He should always bear in mind his allegiance to the State and National Associations, and see to it that the members attend them, and thus a source of inspiration will be established which will be perennial, and the communities in which such men live will reap the benefits.

The County Secretary should keep in close touch with the Journal of his State Association, and make every effort to develop it to the extent it deserves. When one recalls the vast improvement over the old way of publishing our transactions, it ought to be a pleasure to aid in the new. The Journal now visits many other states and its articles are now read in abstract or otherwise by many thousands, where, a few years ago, by the old methods, we had only hundreds for an audience. Our Journal then carries the fruit of our professional activities far beyond our borders and, like the tree, we shall be judged by our fruit. Let every Secretary render such service as shall make our Journal commensurate with the fame which many of our individual physicians have carried, not only beyond the borders of the State, but beyond the seas such men as Sims, Kinloch, Gaillard Thomas, and many others.

I have made only such suggestions in this article as I know are feasible from an observation and experience of nearly twenty years.

COUNTY SOCIETY REPORTS.

AIKEN

Theo A. Quattlebaum, M. D., Secretary

The regular monthly meeting of the Aiken County Medical Society was held on July 5th.

A paper on "Minor Surgery as Found in Aiken County," was read by Dr. C. A. Teague. This was a good paper, replete with practical suggestions. It was generally discussed by those present.

The doctor resurrected the hospital

project which went dead last year. In view of the enormous amount of work sent from this county to other places, for treatment, it behoves the medical fraternity in this county to bestir themselves, and build the hospital. During the discussion, Dr. Croft brought out the fact that a number of Confederate wounded were sent to Aiken for treatment, and because of its climatic advantages it was intended to establish a large hospital here, but the termination of the war prevented the carrying out of this

project.

I would gently remind the brethren, in this county especially, that a society is composed of individuals, and unless those individual members attend there will be no meeting. Do not act upon the presumption that the other fellow will go, and therefore it is unnecessary for you to attend. The chances are that the other fellow acts from your point of view. It is neither fair nor profitable to make the other members do all the work of the society, nor reap all the benefits thereof. It is hoped that each individual member will consider his own presence necessary to constitute a quorum for the transaction of business. I call upon some of our members to turn over a new leaf and to keep it turned over.

COLUMBIA MEDICAL SOCIETY

Mary R. Baker, M. D. Secretary

In the absence of the President and Vice-president, Dr. J. L. Thompson was requested to preside over the meeting of July 12, 1909.

The following members were present:—Drs. Black, Boyd, Baker, Coward, Durham, Harmon, Horbeck, Kibler, Knowlton, Lancaster, McIntosh, Philpot, Rice, H. W., Saunders, Taylor, Thompson and Weston. Visitors:—Drs. Gibson and Folk.

The minutes of the previous meeting were read and approved.

Dr. S. E. Harmon reported a case of General Peritonitis which was freely discussed.

Dr. F. M. Durham reported a case of Asthenic Gastritis which excited a free discussion.

Dr. A. B. Knowlton reported a case of Acute Appendicitis and as usual with this subject, a variety of opinions were expressed.

Thirty years ago Dr. B. W. Taylor operated upon a patient for a Dermoid Cyst. The operation was successful and Dr. Taylor reported the case to the Society. Dr. J. H. Taylor, his son, read this very interesting paper to the Society. The paper will be sent to the Journal.

Dr. J. H. Taylor read an original pa-

per on Spina Bifida, which will be sent to the Journal.

Dr. Tayor asked if any one had used the Morphine and Hyoscine tablets in obstetrical work. Dr. McIntosh said that about a year ago he read a paper before this Society, reporting forty cases in which he had used these tablets and the result in all of his cases was excellent.

There being no further business, refreshments were served and the Society adjourned.

DORCHESTER

Edmund W. Simons, M. D., Secretary

The regular meeting of the Dorchester County Medical Association was held in Summerville on the evening of Monday, July 5th with barely a quorum present, among the absentees being both the essayists, and consequently there being no set subject for discussion the meeting, like the "House of Delegates," fell to agitating the unprofitable and seemingly unsettled question of contract practice, fee bill, and black list. The discussion developed the fact that no two men held the same views as to the meaning of the regulations enacted to cover the above subjects.

The next meeting will be held at St. George on Monday, Aug. 2nd. at 10 a. m. The essayists were re-appointed, Dr. Judy for the regular paper, and Dr. Graham for the one on some drug commonly used.

A full attendance is looked for, as it has been proposed to modify the provisions of the "Back List", the idea being that the list has grown far beyond the original object sought to be covered viz; the "blacklisting" of professional dead beats", to use the words of the originator of the list in this county.

MEDICAL SOCIETY OF SOUTH CAROLINA.

*ALLEN J. JERVEY, M. D.;
Secretary.*

The warm weather of Summer has taken the edge off of society activities for the present at least. The attendance has been small and the characteristics lack of summer interest has been evident. One June the 15th Dr. Townsend

read a paper on the Early removal of Adenoids which proved interesting.

Dr. Baker discussed the papers he had heard in Atlantic City.

Dr. Buist reported a case of Anurysm of the sciatic artery and showed the specimen. On account of the rarity of anurysm at this site the case was of unusual interest.

MEDICAL CLUB'S BIRTHDAY

The 6th. of July the Medical Club celebrated its birthday in excellent style. Dr. Mitchell was master of ceremony and as usual provided a tasty and delightful banquet at the Commercial Club. The after dinner remarks were quite spirited which Dr. Mullally says "was only human nature after all," in the following sad little poem.

For its only human nature after all.
And when I read this please don't think
I'm mean or small,
I offer my apology
For a Satire on Anthrology
For its only human nature after all.

For its only human nature after all.
When you've asked to have a little Scotch
high ball
To accept the invitation
To hell with Carrie Nation,
For its only human nature after all.

For its only human nature after all.
When another Doctor's patient makes a call
To take in the situation,
Swipe the coin and then the patient,
For its only human nature after all.

For its only human nature after all.
When your auto in the sand does stop and stall,
To get out and crank and crank,
And swear a blankety-blank,
For its only human nature after all.

For its only human nature after all.
When the club is in session at the hall
To have your faithful wife to ring
you
For a spurious call by jingo,
For its only human nature after all.

For its only human nature after all.
And requires but a small amount of gall
For a patient to get nifty
When you send a bill for fifty,
For its only human nature after all.

For its only human nature after all.
When a patient at two thirty sends a call,

For your wife to say you're out,
Send for Burns without a doubt,
For its only human nature after all.

For its only human nature after all.
When at Atlantic City in the fall,

You meet Ruth out on the walk
And with her you stop and talk,
For its only human nature after all.

For its only human nature after all.
When later upon Ruth you make a call

That you ask her for a kiss
Which she does not think amiss,
For its only human nature after all.

PICKENS

Dr. R. J. Gilliland, Secretary.

The regular meeting of the Pickens County Medical Society was held at Easley, July 7th with a large attendance, and the meeting was full of enthusiasm.

Dr. H. E. Russel, Vice President, presided in his usual graceful manner.

Dr. J. L. Bolt, President, read a paper on typhoid fever, which was interesting and instructive.

Dr. Bolt laid great stress on the cause of typhoid—sixty-five per cent of the cases being from drinking water. The common house fly also given as a frequent source of infection.

In the discussion Dr. Long said, "I consider diet the most important factor in the treatment and prescribe such diet as will be digested and assimilated. I rely on salol, in 5 grain doses, as intestinal antiseptic."

Dr. C. N. Wyatt said, "I emphasize what Dr. Bolt has said in his paper in regard to diet. Sweet milk is harmful in most cases. I prescribe naphtholene as an intestinal antiseptic with good results."

Dr. W. A. Tripp:—"I believe quite a number of typhoid cases can be aborted. I prescribe butter milk more often than sweet milk."

Dr. J. L. Robinson:—"I believe in plenty of water in the treatment of typhoid, both internally and externally."

At the next meeting Dr. R. J. Gilliland will read a paper on Tuberculosis and

Drs. C. N. Wyatt and W. M. Sheldon will lead in the discussion.

SPARTANBURG

L. Rosa H. Gantt, M. D., Secretary.

The Spartanburg County Medical Society held its regular monthly meeting June 25th, 1909 with only half the average attendance. It is to be hoped that pressure of work and not lack of interest was responsible for this small attendance.

Dr. A. D. Cudd read a very timely and interesting paper on "The Symptoms of

Intestinal Perforation in Typhoid Fever." Dr. J. H. Allen the appointed leader of the discussion being absent, the subject was generally discussed.

Several cases of Pellagra were reported.

Drs. R. E. Thompson, of Inman and Oscar W. Nettles, of Spartanburg were elected to membership.

The committee appointed to assist the County Chairman in formulating plans to organize an Anti-tuberculosis League made its report, and will get actively to work in organizing in September, in the mean time, getting the public interested in the matter thru the secular press.

CORRESPONDENCE.

KEEP THE RECORD STRAIGHT.

Editor Journal South Carolina Medical Association

It is always well to keep the record straight and therefore on noting the statement in the most admirable issue of the Journal just received from you quoted to Dr. O. B. Mayer or by him from others that the case reported before the Richland Medical Society of the complete adherence of a boy's palate to the wall of the pharynx was "the third case ever reported" is a great error. Dr. S. C. Baker again quotes Dr. Mayer and adds another case and Dr. Wilson reports still another making five cases in this state in the recent past. Now this alone should prove that the condition is by no means rare. I can myself recall three cases from memory of complete adherence of the soft palate to the pharyngeal wall and by looking up my records could doubtless add to that number. I have operated repeatedly for the

relief of this condition and often on the same patient. As it is most often the result of tertiary syphilis the parts will reunite in spite of everything unless they are forcibly kept apart and even then we all know how the syphilitic contractions take place and the same thing occurs in the larynx. There we must resort to intubation tubes and dilators to keep the windpipe patent as it is here a much graver condition than it is when the pharynx only is involved. Congenital adhesion of the palate would of course be a very rare anomaly but even that would only be a proof of congenital syphilis. I have always regarded my cases as being so common a manifestation of tertiary syphilitic ebullition that I did not consider them of sufficient interest to be published and I only do so now as a matter of scientific interest and as I have said above to keep the record straight.

Yours very truly,
W. Peyre Porcher, M. D.
Charleston, S. C.

JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION

FLORENCE, S. C.

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STATE SECRETARIES AND EDITORS OF STATE JOURNALS.

We reproduce in part the article by Dr. E. J. Goodwin, St. Louis, Mo., as it appeared in the Journal of the American Medical Association of July 3rd, 1908.

It is so well written and covers the ground so thoroughly that no apology is made for its appearance here.

This article and Dr. Hines's "The County Secretary and His Duties" as found in the Secretaries' Department should be read with profit.

The formation of the Association of State Secretaries and State Journal Editors was accomplished at the meeting of the American Medical Association in Chicago, in 1908, and a definite plan adopted for outlining the objects and purposes of the association. Such an organization has before it the prospect of becoming the most powerful of all the auxiliary bodies of the executive department of the American Medical Association, in furthering the accomplishment of the reforms that the reorganized medical profession has undertaken in behalf of the doctor and of the people.

Including in its membership, as it does the secretaries of the state associations, who are in direct, constant and intimate

communication with the county society secretaries; and the editors of the state journals, whose work brings them also into the closest relation with the county society secretaries, it must be apparent that the responsibility of maintaining harmonious, active and effective county societies rests largely on the members of this body; and that without numerous county societies, actively engaged in the work of advancing the objects of organized medicine, the state associations will be correspondingly weak and unprogressive, with the resultant derogatory effect on the American Medical Association, whose power and influence would be thereby weakened and curtailed.

It then becomes the first and most important function of the Association of State Secretaries and Editors to foster the strength of the county medical societies in each of the states represented; for the county society is the foundation on which our whole scheme of organization is built. We must have therefore, strong, aggressive and progressive county societies, and the time should come, and come soon when, through the deliberations of this association, all state associations can offer their members certain specific and personal benefits accru-

ing from the membership in the organization. Let us not fix our vision on the distant horizon, where Utopia lies and physical perfection is the unearned heritage of all forgetting, the while, that physicians now endure many unnecessary hardships because of misapprehension, misconstruction, disbelief, and even ingratitude, on the part of the people. It is our duty to conserve the health of the nation and to prevent disease; but it is not less our duty to protect ourselves and be prepared to assist each other in the time of adversity that comes to most of us at some period in our career.

When the state journal was first established, it was thought that it alone would be a sufficient inducement to cause a rapid access in membership of the state association since the payment of dues in the county society included subscription to the journal; and there was a high increase in the number of members. But this attraction did not prove alluring enough to very many reputable practitioners, and they remained outside the county society. Later in some states it was found feasible and proper to offer, as an additional benefit to be derived by membership, the assistance of the association in defense against civil suits for alleged malpractice. This added benefit has drawn a great many into the local societies who were not willing to acknowledge that simple organization, with its humanitarian objects, was sufficiently beneficial to themselves to require affiliation with the county society.

In all the states that publish journals subscription to the journal has been extended without an extra assessment over the regular annual dues and of those states, which provide for medical defense this privilege is secured without an increase of dues. In other states however, this privilege is secured only on the payment of an added sum, either by increas-

ing the dues or by special levy. In every case, however, it has strengthened the state association, and as we grow in numbers and in influence, other benefits can be offered as inducements to join the local societies which this association can advocate and advise to be adopted by the state associations.

Since the state journal is the mouth-piece of the state association and the medium of communication between its members, it should be in all respects a journal of information primarily devoted to the interests of its own state organization. We have not yet passed the transition stage in our process of organization, and, therefore, the journal should exert all its influences toward strengthening the county society and the state association. In furthering this object, its first duty is to the county society. The editor of the state journal should watch the workings of the county society quite as closely as does the secretary of the state association, and see that full publicity is given to those societies whose proceedings mark them as being good examples of the beneficial results of organization.

There are three highly important objects which the county society should aim to attain, namely (1) to enhance the quality of the scientific work of its members, as in the preparation of papers the presentation of specimens and patients, and in the discussion following such proceedings; (2) to increase the political influence of the county society in all legislative matters pertaining to public health, and (3) to instruct its members in improved methods of medical economics.

All these objects are being accomplished concomitantly with medical organization, but only incidentally and slowly. The Journal of the American Medical Association is constantly emphasizing

the importance of these three phases of county society work, but their study has not been seriously undertaken by county societies generally. In the matter of improved scientific work we already see what can be accomplished by the post-graduate course established by Dr. Black-burn. There will be an equally great amount of good come from an increase of the political influence of the counties, and the establishment of a better system of economics in the management of the business affairs of the doctor. We must not forget, in our enthusiastic and creditable labor in behalf of the people that the people have been somewhat negligent of the doctor; therefore, while we are teaching them how to protect themselves from sickness, let us also teach them how to respect and appreciate the physician. It should be one of the prime duties of the editors of the state journal to keep before the members of the association the necessity of studying these three phases of county society work."

PELLAGRA MEETING.

The Abbeville County Medical Society will hold a meeting for the study of Pellagra, at Abbeville, on August 6.

All physicians in the state are cordially

MARRIAGES.

Dr. Davis Furman, of Greenville, and Miss Mamie Donalson, were married on June 23rd.

Dr. J. P. Young, of Richburg, and Miss Constance Witherspoon, of Lancaster, were married on June 23rd.

Dr. George Dawson Heath, formerly of Chester, and Miss Louise Ford were married on June 18th.

PERSONALS.

Dr. Hart has recently been appointed assistant Surgeon, U. S. A., and stationed at Presidio General Hospital, San Francisco.

invited to attend.

Dr. J. W. Babcock, of Columbia, who has given so much thought and study to this disease and has so clearly demonstrated its presence here, will attend.

Now that Pellagra has been found not only in the Southern States but in the West, it is attracting general attention.

Dr. G. A. Neuffer, of Abbeville, was one of the first physicians in the State to recognize Pellagra, and has devoted much time to the study of this new malady.

THE DEATH OF DR. JAMES EVANS.

As the last sheets of copy for the July Journal are being made up to send to the publisher, the news is received of the death at Clifton Springs, N. Y., on the 16th of Dr. James Evans, a beloved veteran of the South Carolina Medical Society and one of the most distinguished men in the profession in this state, known personally to the majority of the members of the profession in the state. It is not permitted the publishers of the Journal in this issue to speak of his life and services, but fitting tribute will be paid to him in the next issue by one of his many friends and admirers.

Dr. J. C. Mitchell, of Charleston, has been elected Professor of obstetrics in the Roper Hospital Polyclinic Medical School.

Dr. J. G. McMaster, of Florence, is in attendance at the Camp of Instruction for Military Surgeons, at Antietam, Md.

Dr. C. B. Earle, of Greenville, has returned from New York where he has been doing Post Graduate work.

Dr. E. C. Wilson, of Sumter, has gone abroad for the summer.

Dr. L. Y. King, of Florence, is ill in the Johnson-Willis Sanitorium, Richmond.

BOOKS RECEIVED

REPORT ON THE ORIGIN AND SPREAD OF TYPHOID FEVER IN U. S. MILITARY CAMPS DURING THE SPANISH WAR OF 1898.—By Walter Reed, Major and Surgeon, U. S. Army. Victor C. Vaughan, Major and Division Surgeon, U. S. Volunteers, and Edward O. Shakespeare, Major and Brigade Surgeon, U. S. Volunteers. Vols. 1 and 2. Prepared under the direction of Surgeon General Robert O'Reilly, U. S. Army. *Government Printing Office, Washington.*

HUMAN PHYSIOLOGY.—An Elementary Text-Book of Anatomy, Physiology and Hygiene. By John W. Ritchie, Professor of Biology, College of William and Mary, Virginia. Illustrated by Mary H. Williams; Cloth pp 362. List price 80 cents. Mailing price 96 cents. *World Book Company, Yonkers-on-Hudson, New York.*

TUBERCULOSIS.—A Preventable and Curable Disease. By S. Adolphus Knopf, M. D., Professor of Phthisic therapy at the New York Post-Graduate Medical School and Hospital; Associate Director of the Clinic for Pulmonary Diseases of the Health Department; Attending Physicians to the Riverside Sanitorium for consumptives of the city of New York, etc. With 115 illustrations. 8vo., \$2 net. By mail \$2.50. *Moffat, Yard & Company, New York.*

BIER'S HYPERDERMIC TREATMENT.—By Willy Meyer, M. D., and Prof. Victor Schmieden. The new (2nd) Edition, Enlarged. Bier's Hyperemic Treatment in Surgery, Medicine and all the Specialties; A Manual of Its Practical Application. By Willy Meyer, M. D., Professor of Surgery at the New York Post-Graduate Medical School and Hospital; and Professor Dr. Victor Schmieden, Assistant to Professor Bier at Berlin University, Germany. Second Revised Edition. Octavo of 280 pages, illustrated. Philadelphia and London: *W. B. Saunders Company,*

1909 Cloth \$3.00 net.

PRINCIPLES OF PHARMACY.—The Principles of Pharmacy. By Henry V. Arny, Ph., G., Ph.D., Professor of Pharmacy at the Cleveland School of Pharmacy. Pharmacy Department of Western Reserve University Octavo of 1175 pages, with 246 pages, with 246 illustrations, mostly original. Philadelphia and London: *W. B. Saunders Company, 1909.* Cloth \$5.00 net; Half Morocco, \$6.50 net.

DIET IN HEALTH AND DISEASE.—The new (3rd) edition. Diet in Health and Disease. By Julius Friedenwald, M. D., Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore, and John Ruhrah, M. D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Third revised edition. Octavo of 764 pages. Philadelphia and London: *W. B. Saunders Company, 1909.* Cloth \$4.00. Half Morocco, \$5.50 net.

TREATMENT OF DISEASES OF CHILDREN.—The new (2nd) Edition. Treatment of the Diseases of Children. By Charles Gilmore Kerley, M. D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Second revised edition. Octavo of 629 pages, illustrated. Philadelphia and London: *W. B. Saunders Company, 1909.* Cloth, \$5.00 net; Half Morocco \$6.50 net.

The Medical Era's Castro Intestinal Editions.

During July and August the Medical Era of St. Louis Mo., will issue its annual series of issues devoted to gastrointestinal diseases.

The July number will take up the usual bowel disorders of hot weather, and the August number will be devoted entirely to typhoid fever. These issues always attract considerable attention.

The editor will forward copies to physicians applying for same.

The presence of diabetes should not deter the surgeon from giving a patient with that malady the benefit of relief from a surgical disease.—American Journal of Surgery.

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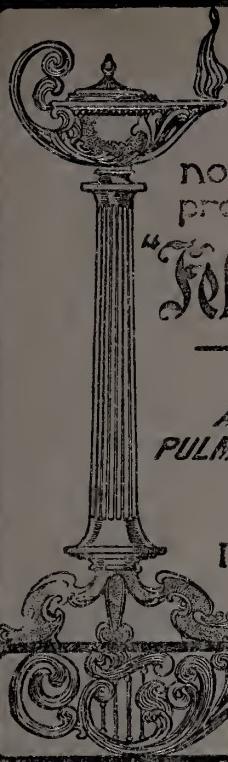


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Volume V.

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ORIGINAL ARTICLES.

THE OCCIDENTAL-ORIENTAL HEALTH PROBLEM.

BY LELAND COFER, M. D.,

Passed Assistant Surgeon, U. S. Public Health and Marine Hospital Service.

It was my intention to discuss the subject of quarantine and disinfection in a general way, but at the request of your president, Dr. Baker, I will take up for your consideration the public health problems which will confront the Atlantic Seaboard in general and the post in Charleston, South Carolina, in particular, upon the completion of the Panama Canal. For lack of a better name we will call it the Occidental-Oriental Public Health Problem. We will discuss it under the following heads.

- 1st. The geography of the problem
- 2nd. The diseases in the problem.

Read before the S. C. Medical Association, Summerville, S. C., April 1909.

- 3rd. The carriers of the diseases.
- 4th. The solution of the problem.

THE GEOGRAPHY OF THE PROBLEM.

A map of Eastern Asia and Western America will show the Pacific Ocean to be bounded by Siberia and Alaska on the North, New Zealand to the South, North and South America to the East, and Asia and Australia to the West. The Pacific Ocean with its continental and insular boundaries constitutes a mighty commercial and disease scattering arena, an arena which may be likened to a huge cart wheel, of which the Hawaiian Islands is the hub, from which lines of travel radiate as spokes to a tire formed by the following ports, namely; Victoria,

Vancouver, Port Townsend, Portland, San Francisco, Port Los Angeles, San Diego, Mazatlan, Acapulco, Salina Cruz Panama, Guayaquil, Callao, Iquique, Aulofagorta, Valparaiso, Wellington, Auckland, Sydney, Brisbane, Singapore, Manila, Hong Kong, Shanghai, Nagasaki, Kobe and Yokohoma. Commercially speaking the ports mentioned are either centers of export or import or else are simply ports of call. Hygienically speaking they are or may become at any time either disease centers of export or import or both. They are important from a quarantine standpoint both on account of the steady increase of intercourse between these ports and on account of the fact that for their respective countries they are points of centralization and distribution.

As infected places their relative importance is subject to wide variation, but infectible areas they are equally important from a general quarantine standpoint.

THE DISEASES IN THE PROBLEM.

The diseases to be considered in this problem may be divided into two classes, the quarantinable and the unquarantinable.

The quarantinable diseases are yellow fever, plague, smallpox, cholera, typhus fever and leprosy. The unquarantinable diseases are scarlet fever, diphtheria, amebic and bacilla dysentery, beri beri, trachoma and nchylostomiasis.

Yellow fever has been prevalent in the ports of Mexico, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Columbia, Ecuador and Peru. Plague has occurred in the ports of Australia, New Zealand, Philippine Islands, China Japan, Formosa, Hawaii, Panama, Peru and Chile. Typhus fever, although occurring from time to time in Isthmian, South American, Chinese, Philippine Island and Japanese ports is seldom seen in maritime quarantine work. It should however, be always borne in mind when vessels from the above named ports are being inspected.

Leprosy abounds in Chinese, Japanese, Philippine Islands, South American, and Hawaiian ports, and is rather frequently encountered in quarantine work. The

scientific investigation of leprosy is soon to begin under the auspices of the United States Public Health and Marine Hospital Service, when this disease will be studied in all of its phases and from every standpoint, so that the findings are likely to be of as much interest to quarantine officers and sanitaries as to the students of medical service in general.

THE CARRIERS OF THE DISEASES.

The modern large steam vessels are rapidly replacing those of the old type on the transoceanic routes, and there is no doubt that as disease carriers they are far safer than the old type of vessels. The large steamers are so expensive to maintain that their runs are quicker and their time in port much shortened, all of which has a bearing upon the chances of their becoming infected with the intermediate hosts of certain quarantinable diseases. Below the water line the hulls of such vessels are divided into water tight bulkheads which together with loftiness of the hull, afford some protection to the ingress of vermin.

The old type steam vessel although carrying out our traditional ideas of what is nautical, is seldom large, and is devoid of arrangement tending to a wide and distinct separation of classes and departments. The superstructure on such a type of vessel affords direct communication with any or all parts of the ship. The quarters on such vessels are constructed with reference to the conservation of freight space, and the separation of classes on board is from a quarantine point of view purely imaginary.

The modern steam vessel on the other hand is almost without exception large, with a general arrangement tending to the wide and distinct separation by bulkheads and decks of the 3 classes of passengers on the one hand and of the different departments of the ship's personnel on the other. Such vessels have high superstructures amidships in which the first cabin passengers live in a world apart from every one else on board. The second cabin passengers are usually quartered in the same superstructure.

Naval vessels and military transports while they do at times become infected with and are therefore capable of carry-

ing quarantinable disease, are comparatively safe for the reason that commercialism enters nowise into their conduct, and every officer on board is officially and morally the guardian of the sanitary integrity of such a vessel.

Steel sailing vessels and tramp steamers usually make long voyages, visit many countries, have the carrying of freight as their sole aim, and in short present the greatest risk to the quarantine officer of any of the varieties of ocean carrier.

All signs point to the gradual substitution of steamers for sailing vessels all over the world and is predicted that this substitution will proceed more rapidly in the future than it has in the past. This fact has an important bearing upon the problem now under discussion for the reason that steamers, particularly tramp steamers are more easily and more often infected than sailing vessels, and their treatment after infections prevents far greater difficulties.

Between the Philippine Islands and North American ports military transports predominate. After the completion of the canal it is probable that troops en route from the Philippines, when destined to points on the Atlantic Seaboard, will be brought through the canal. From this class of vessels however there will be no risk for the reason that not only are military transports detained in quarantine at Manila prior to their departure, when there is quarantinable disease present in that port, but the medical officers of the U.S. Army attached to the transports are very careful to observe every precaution against infection. The South American ports do the greater part of their exporting in steel sailing vessels. The South, I mean the South Atlantic States, will buy nitrate of soda from Chilli and with their great stores of phosphate rock sell a manufactured fertilizer to such countries as Japan, which latter country by the way, has only begun her industrial career. This trade will form one of the connections, through the Panama Canal, between the yellow fever and malaria zones of the southern part of the United States and the plague ports of South America, Australasia and the Orient. Again the gulf ports will export cotton, cotton goods, lumber and manu-

factured iron and steel in exchange for the tea, silk, mattings curios and other manufactured articles of the Orient. The result of this intercourse may be the exchange of malaria and yellow fever on the part of the Gulf ports for the plague, cholera and leprosy.

This in short is the Occidental-Oriental problem as it applies to the South Atlantic Seaboard and Charleston. Now for the solution of the problem. It can only be solved here on this coast by adopting the same methods now in vogue on the Pacific coast. The remedies are quarantine and municipal sanitation. So far as the quarantine end of it is concerned, the problem has been studied in all of its phases by Surgeon General Wyman with the result that a quarantine system has been put into effective operation which anticipates almost every possible exigency. This system comprises a complete system of reports from all ports whether infected or not, the representation of our Surgeon General in all disease ports of any importance by medical officers of experience who see that the quarantine Act of 1893 is carried out in the case of vessels bound to United States ports, and a system of original and supplemental health bills which show the health status of both the ship and the ports visited by her. In order that these ships may avoid routine detention at our home quarantine ports, the personnel and the ship itself must comply with various restrictions in the port of departure depending upon circumstances. For instance vessels are frequently disinfected in foreign ports against infection from rats or mosquitoes. Passengers are detained under observation the period of incubation of a disease and when necessary personal effects are disinfected and labeled at the port of departure. The next step in the system is delay on "clearing house" inspection and treatment at such midway points as Honolulu at the present time and after the canal is completed, Honolulu, Puget Sound ports and the Panama canal ports. Finally the inspection at quarantine at the port of arrival will constitute a four layer "sieving" process. Gentlemen I do not see how it is possible for anything more to be expected of quarantine

in the solution of the problem. I repeat the Public Health and Marine Hospital Service is thoroughly conversant with and is exercising an efficient control over the functions of the present Occidental-Oriental trade routes where they effect the health status of our country.

Now for the other faction in the solution of the problem, internal sanitation.

There is an old medical saying to the effect that the way not to have any deaths in medical practice is not to have much practice. The same idea will apply to a seaport town. The way to quarantine its freedom from filth and disease is not to have many vessels entering it. When the Panama Canal is opened you are going to have the vessels from all parts of the world entering your ports. This will mean an increasing floating population composed of the foreign sailor elements and the representatives of various nations who will cater to their peculiar wants. If the port or ports grow considerably this water front colony, taken as a whole will be a large one. In this climate it requires only one infected plague rat or only one infected mosquito to start a plague of yellow fever in a port. Now quarantine may keep out a multitude of infected rats and mosquitoes, to say nothing of infected persons and things over a long period of time, but to expect it to be perfect and keep the last rat or mosquito out all of the time is to expect it to do the impossible so long as it (quarantine) exercises its functions as a sieve for disease, not a dam for commerce. To provide against the last rat or the last mosquito, the other wing of the public health battery must be brought into play, you must clean up your ports and keep them clean. You must develop internal sanitation. When the Panama Canal is opened you must vaccinate your seaports, so to speak. The cities of any maritime importance on the Pacific Coast have been hard at work at this process of municipal sanitary vaccination, San Francisco, Seattle, Portland, Tacoma, Los Angeles, Honolulu and Guayaquil are steadily improving their invulnerability to such a disease as plague.

These cities have found out that it pays to be as disease proof as possible, for the

reason that quarantine operations are directed against the commercial intercourse existing between places more than against the places themselves and they have found that it is obsolete to cause quarantine functions to be made burdensome to traffic. For example, suppose that any one of you were charged with the task of keeping Charleston clear of small pox, but with the understanding however that none of the inhabitants of the city were to be vaccinated. Compare the quarantine restrictions necessary to such a result with those necessary should the inhabitants of the town enter into the spirit of vaccination as a popular health measure. In a town well vaccinated, so to speak, it would not be a calamity if a case of small pox did get in. The case would soon be isolated and that would be the last of it. So it is in a rat proof town. I mean a town where the citizens have built up a sentiment for building against rats, for protecting their sewers against them, and for obliterating the spaces usually occupied by them. Should a stray infected rat by chance gain entrance to such a town, it would not be long before he would be either caught or killed, while in the case of the ordinary town where no anti-rat work has been done, a stray rat would almost immediately find an asylum. Now gentlemen, you come into direct contact with the people. A person will listen to his family physician when he will ignore everyone else. Explain when you have the chance that public health is human life, that municipal sanitation and quarantine are agencies to be used together to save human life. Explain that one is developed at the expense of the other, that quarantine goes upon the public health scales just in proportion as municipal sanitary weights are applied in larger or smaller degree. In short more municipal sanitation, less quarantine and vice versa. Surgeon General Wyman, my chief, never fails to bring out the point that he is trying to dovetail quarantine with internal sanitation. What he wants to do is to prevent disease, and he believes that it is done more easily for every one concerned when the quarantine officer and the health officer "pool" their interests, so to

speak.

Dr. Baker desires me to make some mention of the quarantinable diseases to which we will be liable when the canal is opened.

I believe that quarantine will give absolute protection to this country from every quarantinable disease save leprosy and plague and it will give nearly absolute protection from these two diseases. In the case of leprosy the disease may exist, even be fairly well advanced and yet not be apparent for any inspection possible in quarantine work. Of course, if suspicion be directed to a certain person, a careful physical examination would be made and if necessary, the microscope would be brought into play. The ordinary symptom for commencing leprosy, the claw hand, the node on the ulnar nerve, the thickening between the eyes, the elongated lobes of the ear, the presence of tubercles, the presence of macular markings, the loss of eyebrows and the drumstick fingers will be looked for by the quarantine officer, but those cases wherein the infected is limited to the nasal mucus, you gentlemen must discover by examining the nasal secretions of private patients.

In the case of plague, the disease being carried by the rat flea, it is impossible to be certain that infection will not escape detection by quarantine measures. For instance it is observed that the virulence of infection is subject to wide variations, not only in rats, but in man. Plague may exist in rats in an attenuated form for a certain period before it makes itself manifest by a marked mortality. Then again, it is difficult after all the rats have been killed in an infected vessel, to be sure that all of the fleas have been destroyed. The killing of every rat in a vessel is a very difficult matter and when it is remembered that the rat flea leaves the rat as soon as the body begins to get cool after death, and seeks the nearest warm body, it is impossible for the quarantine officer to know where he stands with the disease. In a country liable to infection with plague, every phenomena should be carefully watched and if possible, the sputum examined for plague bacilli. Plague pneumonia is very virulent, very rapid in its

lung involvement, attended by very high temperature and delirium, with great prostration and rapidly fatal termination. I have not the time to discuss this form of the disease at length, but such a type of pneumonia in a place exposed to plague infections is to be regarded with suspicion. However, the key note to the situation is the status of the rats. If it can be determined that the rats in a community are or are not infected with plague, the health authorities are in a position to fight against the infection of human beings, for plague always exists as an epizootic in rats before it attacks human beings.

It is obvious in this age every city should take cognizance of its rat population, in other words, rat extermination is destined to become as fixed a function as garbage disposal. My time is up and I must close but not before I thank you for bearing with me through this lengthy discussion. I consider it a great honor to represent my service at this meeting, and I have derived much pleasure in meeting the members of the South Carolina State Medical Association for which I am grateful to Surgeon General Wyman.

DISCUSSION

Dr. T. P. Whaley—I would like to ask Dr. Cofer if he has drawn any conclusions as to the contagiousness of leprosy (same question asked Dr. Haines)

Dr. Maudin.—I would like to ask if the government insists on quarantine or isolation for lepers?

Dr. Cofer,—I believe the authorities agree that it is contagious for the most part as the result of intimate contact. If the nasal secretions are infected as often as is commonly supposed the acts of sneezing and coughing and the use of handkerchiefs and towels would serve to disseminate the virus.

The United States' quarantine regulations direct that cases of leprosy found on vessels shall be removed and placed in quarantine.

AETIOLOGY, Prevention and Treatment of the More Common Tropical Diseases Met With on the Canal Zone.

BY J. ADAMS HAYNIE, M. D., U. S. A.

*Mr. President and Gentlemen of the
S. C. Medical Association*

It is certainly a great privilege to me to be with you today, and to be greeted by the kindly hand clasps of so many friends after a sojourn in a far country. One doesn't realize what a great blessing it is to be an American and especially a citizen of South Carolina until one has lived among the black and tan races of other lands.

Eighteen years ago I had the honor of being in Summerville at a banquet given at the Pine Forest Inn to the Southern Surgical and Gynecological Society. Prof. Sheppard gave a delightful tea to the members. I remember there were two large punch bowls, one containing tea grown here by Prof. Sheppard and the other champagne punch. I am told the tea was delicious. Prof. Sheppard showed us the tea plants growing and in between the tea rows were planted most lovely roses. Since that time Summerville has always brought to my mind thoughts of spring time, sunshine, champagne and roses and I am indeed glad to be here once again to enjoy that quartette.

When Col. Gorgas detailed me to represent himself at this meeting and to read an address I told him his shoes were too great for me to fill, but glancing at my feet he would not agree to that proposition, so I am compelled to inflict upon you an article with the following title: "Aetiology, Prevention and Treatment of the more Common Tropical Diseases met with on the Canal Zone."

When one hears of the Isthmus one expects to hear about yellow fever. But

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my chapter on that disease will be like that in the history of Ireland entitled "Snakes in Ireland." The whole of the chapter being this statement. "There are no snakes in Ireland." There is no yellow fever on the Isthmus and has been none since Dec. 1905. Col Gorgas, Major Carter and their co-workers took possession of the Canal Zone in May, 1904 and they so efficiently did their work that yellow fever remains only as bogey man to scare tourists with when they become too numerous on the Isthmus.

The Stegomyia Calopuh was thoroughly destroyed by fumigation and the destruction of their breeding places. Three times a force of four hundred men fumigated every house and hovel in Panama and reft:migrated every block where yellow fever occurred. The brigades systematically destroyed all breeding places or screened them. They used two hundred thousand pounds of pyrethrum, and four hundred thousand pounds of sulphur, and by December 1905 had the Stegomyia so well in hand that since that time there are but few in the city of Panama. At the present time an effective quarantine is maintained and tho' yellow fever is in Guayaquil and also in Central America yet it has not recurred and Panama is as healthy as most American cities. This great discovery of the cause of yellow fever was worked out by the Army Medical Board consisting of Drs. Reed, Carroll, Lazear, and Agramonte in 1901.

It is proper to mention in this connection that Dr. Coles Finley since 1881 had deduced the theory of the prevention of yellow fever with the bites of infected Stegomyia. The discovery of the prevention of yellow fever came in the nick of time, for without this knowledge and its sister discovery of transmission of

malaria by the Anopholes mosquito work on the Canal would be an impossibility.

This brings us them to the consideration of malaria, its etiology, how treated and how prevented. When we consider the geographical situation of the Isthmus, its tremendous rainfall from May to January, the marvelous tangle of rapidly growing plants, its streams pushing their way through flat soiled swamps, every depression teeming with the larvae of the Anopheles, we wonder how the mind of man could have dreamed of ridding of mosquitoes this area fifty miles long, and ten miles broad of tropical jungle, recollecting that an Italian, Fiacalbi, has estimated that from one female mosquito two hundred million are produced in four months. This gigantic task could not have been even thought of except some peculiar facts in regard to the Anopheles which are, first; that it prefers clean water, where there is algae and grass; second that it does not travel far from its breeding place except in rare instances, not going over two hundred or three hundred yards; third that it does not bite in the daytime.

The first of these facts made the placing of drains and the keeping them clear of vegetation efficient in destroying the mosquito.

The second, because it was only necessary to destroy their breeding places, and the limited area made this possible of accomplishment, and the third fact allowed the men who had the destroying to do some immunity from infection, while working in the daytime.

The general plan pursued for finding the settlements of Anopholes was clearing away the brush and thick under-growth, cutting ditches and putting in subsoil drains and where drainage was impossible, kerosene or Phinotus oil was placed on the pools and wherever water was. In the slowly running streams a barrel or a can of oil with a hole in the bottom was allowed to slowly drip into the stream and thus effectually destroy the larvae. The quarters were all screened with copper wire netting whose meshes were small enough to prevent the mosquito from passing through, this prevented those having the malarial parasite in their blood from infecting mosqui-

toes. A prophylactic dose of 3 to 5 grains of quinine was given daily to reduce the number of patients having the malarial parasites in their peripheral circulation, this also aided in keeping down the number of infected mosquitoes.

These methods succeeded, and year by year we see malaria on the decrease and can predict that it will finally be a negligible factor in considering the odds against the Canal project.

In the military hospital in Constantine in Algiers a medallion has just been placed in commemoration of the work done by Laveran in that hospital, where his researches discovered the malarial parasite and who announced the same in 1820. To Ross however, is due the honor of the discovery of the Anopholes Maculipenis as the host of the malarial Haemamoeba and his theories were amply proved by Manson, Sambon and Low in the Roman campagna.

It has been said that many instances of civilization met their end through inability to cope with malaria, and it has been reserved for the first years in the twentieth century to find out its true cause and to institute such effective remedies for its prevention as exemplified on the Canal Zone, once said to be the unhealthiest spot in the world.

Cicero has said that there is nothing in which men so approach the gods as in giving health to other men, and all honor is due to the pioneer physicians who risked their lives on the Isthmus.

The treatment of malaria on the Isthmus consists of the administration of quinine as soon as a blood specimen is obtained and the malarial parasite found. We either examine the fresh blood or a stained specimen if the case is at all urgent. Quinine is given hypodermically, 20 grains every 3 hours.

The so called Chagres fever has proved to be only a pernicious malaria and rapidly heals to strenuous treatment of quinine. It might be interesting to note that during the month of August 1908 65 pounds of quinine, powdered, fifty pounds in 3 grain tablets, 40 pounds in 5 grain tablets, five pounds in three grain pills, and two pounds in two grain pills, making a total of 172 pounds of

quinine dispensed during the month.

The next tropical disease of interest and whose far reaching influence is perhaps as great as malaria is *Ankylostomiasis* or *Uncinariasis*.

The necessity for routine examination of the stools of all patients is one of the first things impressed upon the student of tropical medicine, for by such routine examinations can he alone discover the many intestinal parasites to be found in tropical and sub tropical countries. The technique is so easy that one wonders why it is not one more generally used by all physicians. For the benefit of some who may care to pursue this interesting study, I will say that it is only necessary to put a small portion stool on a slide, if too solid add a drop of water, place a cover glass over this, and let it spread out thin between it and the slide and one is ready for work. The ova usually found, and the one we are interested in are the *Ascanis Lumbricoides*, *Uncinaria* and *Tricephalus dispar*. Occasionanally we find *Strongyloides* and the *Bilharzia haematobia*. There ova are easily differentiated, the *Ascaris* being somewhat barrel shape with a warty shell and showing up yellow bile stained the *Uncinaria* clear, smooth coated, no bile stain. The *Tricephalus dispar* is very distinct doubly outlined, with a little projection at each end and can be mistaken for nothing else. It is admitted by all that the most frequent cause of tropical Anaemia is the *Uncinaria* and the discovery of the ova in the stools clears up many an obscure diagnosis.

Administer thymol in the following manner: Permit the patient to take no food for 12 hours, give 5 grains of calomel at bedtime, at 7 a. m. administer 20 grains of thymol in capsule, at 7.30 20 grains more, and 8.30 a large dose of Epsom salts. Allow the patient no alcoholic drinks during treatment. After treatment a tonic of iron and arsenic, and make several subsequent examinations of the stool, and if more ova are found administer a second similar treatment, and you will usually have a rejuvenated and grateful patient.

Whether the extreme Anaemia from *Uncinaria* is due to repeated abstraction

of small quantities of blood from the intestine by the hook worm or by a toxine produced by the presence of the worm is the mooted question, but authorities seem to be in favor of the latter hypothesis.

As this disease is common in South Carolina this simple and inexpensive treatment should have a wide area of usefulness in the Southern States and I know much is being done in the treatment of this disease.

As to prevention unpoluted water and the wearing of shoes so as to prevent ground itch, the usual mode of ingress, can do much to prevent, while the general administration of thymol will lessen the number of the paraste carriers.

DYSENTERY.

This is a water borne disease and is also contracted by the eating of uncooked vegetables, such as lettuce, fruits that have lain on the ground and are not peeled, and by the drinking of water that has been contaminated. We recognize three forms on the Isthmus, the Amoebi, the Bacillary and the Catarhal.

The first is due to the *Amoeba Coli*. This little protoplasmic mass may be seen in the stool and its diagnostic movements observed by having the microscopic stage warmed. The Amoeba is a clear mass of faintly green color about four times the diameter of a red corpuscle which by sending out pseudodia creeps around on the field on the microscope. It is easily recognized and the treatment by the use of rectal injections of quinine solution rest in bed, bismuth by the mouth in large doses, a bland nutritive diet, sometimes laudanum and starch water is necessary to control the tenesmus.

The Bacillary form is probably due to the *Bacillus Dysenteriae*, as when the serum of patients suffering from this disease is added to a culture of that bacteria the characteristic clumping is seen.

The treatment is rest in bed, large doses of bismuth, bland diet.

Much success has been obtained by the use of injections of anti-dysenteric serum. This last variety sometimes so overwhelming a toxæmia as to produce

death in less than twenty four hours. This is known as fulminating dysentery and its malignancy proves its bacillary origin.

The third or Catarrhal form is the usual form in the United States and is due to taking cold or the ingestion of some substance having an irritating effect upon the mucosa of the colon. It yields readily to castor oil as a purge, followed by bis-mouth and opium, or if the tenesmus is great, starch water and tincture of opium by the rectum.

To sum up, if you want to avoid dysentery in the tropics boil the water you drink, peel the fruit you eat, eat only cooked vegetables, eat nothing that has been handled by the natives, unless it is subjected to a high temperature, sufficient to kill the Amoebia or the dysentery bacillus, wear a flannel bandage and avoid the social bowl.

ABSCESS OF THE LIVER.

One cannot leave the discussion of dysentery without taking up the subject of abscess of the liver, for it is proved that rarely if ever does this condition occur without a previous dysentery and the fact that the contents of the liver abscess are not usually true pus, but in nearly all cases found to contain Amoebia, points to the Amoebic form of dysentery as its true cause. No disease that we meet with in the tropics requires more diagnostics acumen than that of liver abscess for its onset is insidious and its symptoms resemble malaria, pleurisy, basic pneumonia, typhoid fever and other diseases and one has to be ever on guard lest a mistaken diagnosis be made, the patients condition not understood and a postmortem show a grievous error of the physician. The symptoms of liver abscess consist of an uneasy feeling in the right hypocondrium, or perhaps a stabbing pain, a dull boring pain in the region of the right scapula, perhaps like jaundice, though this last is by no means a constant symptom. On physical examination if the abscess has progressed far enough a dome shape enlargement of the liver may be made out. The area of dullness is increased, the ~~right~~ rectus muscle on examination, is rigid and

starts out as if to protect the areas examined. The irregular outline of the liver can sometimes be made out and sometimes the seat of the abscess located by palpitation. As the disease progresses they have septic fever of an irregular type with slight chills and irregular fevers at different hours of the day, drenching night sweats, slight jaundice, great jaundice, great emaciation, muddy skin, pasty stools.

Repeated examinations of blood show no malarial parasites, widal tests is negative, stool examinations negative, sputum shows no tubercle bacilli. These conditions exist for weeks, perhaps months and if left to itself the abscess ruptures into the intestine through the duodenum, on into the bronchi through the diaphragm or perhaps into the general peritoneal cavity. In all cases presenting such a train of symptoms aspiration under either anaesthesia is justifiable and the aspirating needle should be passed through various portions of the liver until pus is located. Having located the pus, leave the aspirating needle as guide and make an incision down to the peritoneum. If there are adhesions between capsule of liver and peritoneum the incision may be carried down to the abscess or a pair of dressing forceps pushed in to the abscess cavity, closed and withdrawn opened; or the finger may be used to explore the cavity breaking up all pockets that may exist. A flange rubber tube is carried to the bottom of the abscess which is allowed to drain itself. Should there be no firm adhesion the capsule may be stiched to the abdominal wall with a double row of stitches. Some prefer to stuff the wound with gauze and wait for adhesions to form before opening the abscess. If the pus is struck above the costa border it is often necessary to remove a portion of a rib in order to gain access to the abscess. We have many cases of liver abscess on the Isthmus and our surgeons have been remarkably successful in curing this most serious of tropical ailments.

DHOBIE ITCH.

This disease we all have sometime or other during our stay on the Isthmus. It is a name we have given to every form

of itching skin diseases that flesh is heir to and their name is Legion. We have pemphigus contagiosa, tinea imbricata, tinea tonserans, and tinea versicolor, scabies, bites from red bugs, chigoes, and seed ticks. We are so accustomed to scratching that we do it on all occasions and the dweller in the tropics gets a perfect luxury in scratching. The Chinese sell in their stores a delightful instrument which I have with me. It is shaped as you see like a human hand and easily reaches the most inaccessible portions of the human anatomy. True dhobie itch, Manson says, is due to the microspore minutissimum I take his word for it. I have never seen the sporon, but I have felt its power.

The prevention is a daily bath with plentiful applications of equal parts of boric acid, starch and oxide of zinc to the axillae and crutch. Daily change of underwear, clothing should be boiled in the washing, which is not the native method. They dislocate the clothes and remove the buttons by a beating on the rocks in the beautiful thick water of the Chagres and Rio Grande rivers.

The treatment I have found most effective in the dhobie itch is the painting of the affected parts with a 25 per cent solution of salicylic acid and alcohol. This treatment destroys the cause and the patient returns with blood in his eye looking for the doctor who prescribed.

LEPROSY.

Leprosy is met with on the Isthmus and we have at Palo-secca colony of 23, where are isolated all cases found in Colon, Panama, or the Canal Zone. They have excellent quarters and a white superintendent looks after their comfort and administers such treatment as they require.

The treatment is similar to tuberculosis, force feeding, hygienic surroundings etc.

Cholmoogra oil is administered and from the reports of the Louisians leper colony we hope to report some cures.

When I was last over at Palo-secca I saw a boy about eight years old with a typical leonine countenance of the Nodular form of the disease.

BERI-BERI

This curious disease for which no def-

inite cause has yet been found is occasionally seen on the Isthmus. At the Toboga Island where I have been in charge of the hospital for convalescents, there is a native village with perhaps 1500 inhabitants. This village was founded in 1530, and its manners and customs are similar to when it was founded. In this village I have found three or four cases of what I diagnosed as Beri-beri.

The principal symptom seen and complained of is palpitation of the heart. After the slightest exertion, the legs were oedematous, extending to knees, the patients lie down all the time, are unable to get about except by a sort of dragging or shuffling of the feet. The oedema is not a constant symptom. They complain of pains of the limbs, especially in the calves of the legs, also pains in the stomach and chest. They get well perhaps after three or four months or they remain invalided, or they may die very suddenly with a dilated heart.

On inquiry that certain houses are prone to produce beri-beri. I also find that the removal of a patient from one house to another though only for a short distance improved the patient. Manson's theory of a toxine produced by the soil would seem to be substantiated in these cases. On the other hand their food is very insufficient, non-nitrogenous and non-nutritious. They eat a great deal of rice and fish and empirically I do not let them have rice and fish while under treatment as the Japanese claim that rice caused the disease. It is possible that this may be a disease similar in its cause to pellagra and alcoholic neuritis. It is undoubtedly a trophic neuritis.

I always administer thymol first and they usually have uninariasis and it is possible that the texine produced by the hook worm may aggravate the condition.

ELEPHANTIASIS

This disease is met with on the Isthmus and the filaria nocturnis has been demonstrated in nearly all cases. Especially easy of demonstration is this filaria in the form of the disease known as lymph-scaratum and also as adenitis of the inguinal glands.

The disease shows symptoms of exaggeration at times. There is fever, nausea and vomiting, pain in the affected parts.

It has been pretty well proved that it is caused by the bite of an infected culex fatigans or common house mosquito. For the tremendously enlarged scrotum and labia, surgical intervention is required, usually with excellent results. It is interesting to note that it was through the study of the filaria sanguinis hominis, that Manson predicted the discovery of the transmission of malaria by the mosquito.

This paper has not been intended as a didactic treatise on tropical diseases, whose name is legion, but simply to present the main point of the more common Isthmus. In addition to the diseases complaints we have to deal with on the enumerated we have the disease of temperate climes, such as typhoid fever, pneumonia, tuberclosis, etc.

The tropics seem to be exempt from no disease and have in addition their own fauna and flora. A doctor in the tropics should be a naturalist and enthusiastic in his work, the field is wide and discoveries are constantly made as to the causation of the diseases met with, and a greater opportunity for individual effort is afforded than in the temperate clime, where all the prevalent diseases have been thoroughly studied.

NEURASTHENIA.

This last disease I will discuss is Neurasthenia. This disease is very common, in fact nearly every one has it to a greater or less degree. The constant great heat the humidity, the incessant irritation, on account of the continuous high temperature, the excessive action of the skin, the extra work thrown on kidneys and liver, the discomfort of numerous biting insects produce a condition of high tension in the nervous system.

The dweller on the Isthmus after two years more or less, becomes very irritable.

Things that he would pay no attention to in a temperature climate cause him to lose control of himself. The tendency toward alcoholic ex-

cesses, the use of various drugs is markedly increased, he becomes a prey to morbid imaginings about his health, symptoms real or imaginary, are magnified, he may become, as many are here, yaletudinarius, whose one thought is about their ailments.

This class of patients give the doctors as much trouble as the same class do in the states except that the same strain on the doctors nerves causes him to be less long-suffering and less courteous than his brother physicians at home.

The Neurasthenics go through pretty much the same plan of treatment as they do in the States. Enthusiastic young internists ply them with all kinds of drugs, give them electricity, hot air, cold baths, massage or anything else that may suggest itself from their over flowing knowledge of the newer remedies. The young surgeons blithely remove all organs that seem to be loose and prepare interesting papers for the Zone Medical Society on how much can be cut away from the human body and yet the maimed live.

After undergoing all these different treatments, they finally land at the Taboga Sanitarium where the fresh breezes delightful bathing, and open air treatment, combined with good food and rest of mind and body, enable them in time to take up again the burden of building the canal.

DISCUSSION

DR. J. T. TAYLOR:—would like to ask Dr. Hayne how long he continues that hypodermic of 20 Gr. quinine every three hours?

DR. HAYNE:—In regard to Dr. Taylor's question, concerning the amount of quinine. We use it to kill the parasite. When we find the patient with parasites, this man being in a comotose condition, and unable to take quinine by the mouth, we give him 20 gr. hypodermically until he comes out of his comotose condition, or dies.

THE LOCAL AND CONSTITUTIONAL TREATMENT OF CORNEAL ULCERATION.

BY CHARLES W. KOLLOCK, M. D., Charleston, S. C.

One has but to look through a window pane that is soiled or glazed to realize the condition of those persons whose cornea have been made opaque or hazy by disease or traumatism ulceration of the cornea is seen almost as frequently by the general practitioner as the oculist and in no small percentage of cases the treatment devolves upon the former. That the gravity of such cases is frequently not realized and they do not receive the attention they should can not be denied and it is the purpose of this paper to bring as forcibly as possible to the attention of the profession the great importance of early recognition of corneal lesions, the necessity for prompt and unremitting attention in order that ulceration shall be prevented or controlled before damage has been done that will impair or destroy vision and the hopeless condition of those whose eyes have been irreparably injured by inflammatioin of this most wonderful structure. When we remember that the external tunic of the eye is composed of the sclera and cornea which are practically identical in structure, but with the difference that one is opaque and the other transparent, that from the latter even the blood is excluded in order that the rays of light may encounter no obstacle on their way to the retina, then can we realize with what a wonderful tissue we have to deal. In order to better understand this apparently structureless tissue, I shall take the liberty of briefly refreshing your memories about it. The outer surface is protected by a layer of epithelial cells which are transparent. Next is the anterior limiting (Bowman's membrane) strong and elastic and composed of fibers that can only be recognized under the microscope after being subjected to chemical reaction. Within this is the cornea proper

a layer composed of sixty lamellae of fibrous tissue whose fibers have not only a parallel arrangement in each lamella but are also oblique and pass from one lamella to another thus binding the whole into a bundle so compact that it would seem that vitality would be pressed out. But such is not the case, for in this mass are interstices through which pass the corneal corpuscles and wandering cells that serve to nourish this apparently structureless body. Next to the cornea proper is the internal limiting membrane, and within this a layer of endothelium (Descemet's Membrane). It seems scarcely necessary to say more in order to impress upon you the importance of keeping this window of the eye healthy and uninjured. It is interesting and useful to know that the epithelial covering of the cornea may be entirely destroyed or removed, and if the injury does not extend deeper than the vision will not be impaired as this covering is rapidly restored. Some years ago a lad was brought to me with the greater portion of one cornea white from contact with a hot poker. At first I thought the eye was irreparably injured but more thorough examination showed that only the epithelial layer was involved. The eye was cleansed, a drop or two of a solution of atropin instilled and a bandage applied. By the next day only a slight hyperemia of the conjunctiva remained to show that the eye had been injured. It is wonderful what a barrier to infection this delicate layer is and how, if unbroken, it will successfully resist the attacks of the most virulent germs and preserve the cornea proper intact. Therefore in all injuries and affections of the eye the closest watch should be kept upon this covering to see that it remains intact. So small may be the break in its surface that the untrained observer may overlook it and I shall call your attention to two methods by which abrasions of the epi-

thelium may be readily detected. First by aid of the loupe a very strong magnifying glass, by which every portion may be carefully inspected, and the loss of covering recognized by finding a dull or non-reflecting spot. The second is perhaps the easier for those who are unaccustomed to make such examinations. One or two drops of a solution of fluorescein (gr. $\frac{x}{2}$ to $\frac{3}{2}$) are dropped into the eye and immediately any break in the continuity of the epithelium will be stained a greenish-brown or yellow color while the epithelium remains unstained. Abrasions are usually due to traumatism and may be suspected before an examination is made on account of the symptoms given by the patient—viz: a sudden and sharp pain in the eye following a blow, scratch or simple rubbing of the lids. The pain is out of proportion to the signs of injury, photophobia is intense and lachrymation profuse. A careful search, as advised above, will show the abrasion and a few drops of a 2 per cent solution of cocaine will relieve the pain so that a more careful examination may be made of the cornea, conjunctiva, lids and especially of the tear passages for it is in them that the danger often lurks. Firm pressure over the sacs will prove whether secretions are present and if found diseased they should at once be excised. In these mucoceles the pneumococcus is often found and infecting of the cornea will most certainly follow exposure to this germ. When no abnormal conditions of the conjunctiva and tear passages are found and there is no reason to suspect that infection has occurred at the time of injury will probably be prompt and complete. The cornea and conjunctiva should be cleansed with a sterile solution (boric acid) and the eye bandaged. When there is doubt about an infecting agent or reason to suspect any, the eye should be bathed in a solution of argyrol (5 to 20 per cent) or the spot lightly touched with tincture of iodine or pure carbolic acid. The protecting bandage should be worn at least for twenty-four hours and not left off until a careful inspection has proved that the epithelium has been fully restored. Just now it is well to mention the so-called recurrent

corneal erosion (keratalgia traumatica recidiva) which complicate an injury of this kind. Sometime after an abrasion has healed the patient may awaken with a sharp pain in the eye, which seems to have been caused by the lid sticking to the cornea, or it may come suddenly while rubbing the eye. Inspection will show an erosion at the exact site of the abrasion. Again bullae or small vesicles may be seen before the erosion takes place. Recovery is usually slower in these cases than in the primary injury. The pathology of this condition is rather obscure but some think that a chemical irritant may have been introduced at the time of injury which perhaps interfered with the cohesion of the cells, or perhaps a very mild infecting agent may have prevented the normal restoration of the cells. Some years ago a patient of mine struck one eye against the projecting corner of a shelf and caused an abrasion of the corneal epithelium. While very painful it healed readily. Sometime after she was suddenly attacked by a sharp pain in the same eye and I found a recurrent erosion. She suffered considerably with the attack, but healing was fairly prompt. Several months later she had a second attack which lasted about a month in spite of careful treatment. In this attack there was slight infection of the wound which accounted for its tardy recovery. The treatment consisted in cleansing, instilling atropine to allay iritic irritation, dionin to relieve pain and touching the ulcer with tincture of iodine. Recovery was finally complete and it is now nearly three years since her last attack. Knowing that recurrent erosions may happen should make us very careful about cleansing the first wound, protecting it until healing is complete and cautioning the patient to guard against rubbing or irritating the eye for sometime after all sensitivity has disappeared. The pneumococcal ulcer, first described by Saemisch in 1870, is perhaps one of the most common forms of ulceration of the cornea. It is usually caused by the pneumococcus infecting an abraded spot at or near the center of the cornea. It is common among mechanics, laborers and others

exposed to injuries from foreign bodies, dust, etc. A round grayish opacity is seen which has caused a slight loss of corneal substance and interferes with vision rather than causes discomfort. It has a tendency to creep, hence its name of ulcers serpens. It finally involves the entire corneal surface and is followed by perforation, staphyloma, or phthisis bulbi. The most favorable result is leucoma. An hypopyon forms quite early and is usually accompanied by iritis. Treatment in these cases should be prompt and persistent. If the source of infection is from the tear sac it should be excised. The floor of the ulcer should be carefully cleansed of necrotic masses by a spud or curette, or by a fine stream of bichloride solution (1-000) thrown from a hypodermic or similar syringe. The overhanging edge of the ulcer should be clipped away with scissors and the entire field of ulceration touched with tincture of iodine or preferably with pure carbolic acid. These applications may be made by wooden tooth picks that have been soaked in the solution. After this solution of argyrol, protargol (5 to 20 p. c.) may be dropped in the eye several times a day. Atropine should of course combat iritis and 1 or 2 drops of dionin (1 to 5 p. c.) may be instilled 3 or 4 times a day to relieve pain. When pain is very intense, the progress of the ulcer rapid, the hypopyon large and perforation imminent, cornea should be incised after the manner advised by Saemisch. This consists in passing a Graefe knife from one margin of the ulcer through the floor into the anterior chamber and coming out at the opposite margin. The chamber is quickly emptied, tension relieved and frequently improvement follows. The anterior chamber should be opened every day until the ulcer becomes clean and healing begins. Vision in the most favorable cases is much impaired but when any portion of the cornea remains clear an iridectomy may improve the vision. It is obvious to all that early recognition and prompt and effectual disinfection of the ulcer can alone save these eyes.—It has been recently proved by bacteriologic investi-

gations that other germs besides the pneumococcus can cause spreading ulcers, such for instance as the diplobacillus. However recognition of the germ is less important than prompt and vigorous treatment.

Ulceration of the cornea frequently takes place during the various attacks of purulent conjunctivitis such as those caused by the pneumococcus, streptococcus, staphylococcus and most serious of all, the gonococcus. In these cases ulceration is preceded by a softening of the epithelial layers which permits the entrance of the germs to the cornea proper. The superficial layer soon breaks down and the ulcer tends to deepen rapidly and cause perforation. Destruction of the corneal tissue is very rapid in these cases and the surgeon is handicapped by not being able to remove or effectually disinfect the source of infection. It is most important to learn as early as possible the kind of infecting germ for upon this knowledge depends to a certain extent the treatment. In all cases of purulent conjunctivitis cleanliness is of extreme importance. These eyes should be cleansed as often as it is necessary to prevent the discharges from remaining in contact with the cornea. A sterile, non-irritating solution (boric acid) used warm is best adapted for this purpose. Great care should be taken by the surgeon and attendant that no corneal abrasion is made by touching the cornea with the pipette nozzle of syringe or by rough cleansing with cotton. Several reports have been made of the efficacy of the serum treatment when the inflammation was caused by the pneumococcus, staphylococcus, streptococcus, though inflammation due to the last named is rare. Roemers polyvalent serum has been most used though on injection of dead streptococci has proved successful. For gonorrhoeal ophthalmia silver and its salts are of course the proper remedies. These are employed in almost as many ways as there are employers. There are many who stand by the old way of treating the disease by applications of solutions of nitrate of silver in strength from five to sixty grains to the oz., while just

If ulceration once begins during an attack of one of the virulent forms of conjunctivitis it is most difficult to control and one can usually congratulate himself if the entire eye is not lost. Efforts at cleanliness should be redoubled, atropine and dionin should be instilled and in cases of gonorrhoeal ophthalmia the applications of silver should be made often and of increased strength. It is doubtful in these cases if anything will stop the ulceration except the actual cautery which should be vigorously and fearlessly used.

I do not believe that solutions of argyrol or protargol are of much use at this stage, but as they can do no harm the entire eye should be actually deluged with them at least every two hours. In cases of pneumococcal, staphylococcal, and streptococcal ulceration the serum treatment should be accorded a prominent position. In several cases of obstinate corneal ulceration of no special type Radcliffe has reported excellent results from the use of typhoid extract in small doses (3 grs. 3 times a day) and at the same time dropping into the eye a few drops of the solution (gr. 15 to 5 xv) several times a day. He thinks it has a dual action: "first on the lymphatic system and secondly in increasing metabolism and nutrition."

Phlyctenular Ophthalmia which occurs principally in young children constitutes the largest percentage of cases that are usually treated at public dispensaries. It undoubtedly is due to lack of good nutritious food, of bad hygienic surroundings and hereditary weakness. One has but to see a single case to be able to recognize it even from a distance. The child avoids the light, slinks into a corner, covers its face and refuses to be comforted. Closer inspection shows swollen lids that are often excoriated at the edges and corners, lacrimation, a running nose, ulcerated nostrils and excoriated upper lip. Blepharospasm is so great that it is difficult to separate the lids without an elevator which should be used in order that a clear view of the cornea may be had. There we see ulcers at the corneo-scleral edges and scattered over the cornea, some large and

some small, some fairly deep and others barely involving Bowman's membrane. The conjunctiva is swollen, congested and velvety and the discharge is usually muco-purulent. Undoubtedly these cases originate from some systemic or constitutional disorder, but it is also true that infection from surroundings and rubbing the eyes with dirty fingers plays a most important part. Improvement in the general condition alone of these patients will often bring about a cure and a change of climate always does good. The diet should be regulated for the parents will often say that the child eats any and everything and be surprised that it should not. Calomel to clear out the bowels is very useful as a starter and of course iron, arsenic, cod liver oil, etc., help to build up the strength.

The eyes are the hardest part to manage for it requires an expert to cleanse and make applications properly to them. These cases should be placed in a hospital whenever possible and kept there until the eye conditions improve. The head of the child should be held between the knees of the surgeon, the lids and cornea and nose cleansed, the ulcerated edges of the lids and nose should be touched with a solution (gr. x to 5) of nitrate of silver and atropine instilled to allay corneal and iritic irritation. The yellow oxide of mercury ointment (gr. s - 1 to 5) is often used for the ulceration and is frequently efficacious. Sometimes it is necessary to curette or touch these ulcers with tincture of iodine pure carbolic acid or other cauterants before they will heal and finally these children should be kept as much as possible in the open air and the eyes never bandaged.

Of course when perforation takes place in corneal ulceration the iris falls into the opening and unless immediately freed becomes attached. It cannot be removed for the pressure of the lens from behind keeps it there. Many advise the excision of the plugging part, but it seems to me a wiser treatment to leave it there for excision does not prevent further attachment and if left there it acts as a partial, if not effectual barrier to the entrance of infectious material.

as numerous are those who extol the virtues of argyrol, collargol and protargol. Healing is little if any retarded by its presence and in time the slight staphylococcal proturbance disappears. After all inflammation has disappeared and when the parts can be easily seen, the synechiae may be freed or an iridectomy performed if necessary to improve vision. Furthermore I cannot approve of the use of eserin, as advised by some, when an ulcer is situated near the periphery of the cornea and likely to perforate. Even if the pupil were tightly contracted by eserin the iris would prolapse if perforation should occur as it is irresistibly carried by the rush of the aqueous humor and pressed forward by the lens from behind. Again eserin is poison to an iris that is sensitive, or threatened by inflammation and what we particularly wish to avoid in all cases of corneal inflammation is iris involvement. In only one class of corneal ulcers have I seen eserin of any value and those are the indolent ulcers, which are sometimes seen in old trachomatous cases which neither improve or get worse. The stimulation and improvement in some of these cases from the use of eserin is at times wonderful as I often saw when an interne at Wills Hospital in Philadelphia.

Malarial infection at times seems to cause the dendritic form of ulcer. In two such cases, a brother and sister, who were under my care, local treatment caused no improvement. Finally a blood examination showed the presence of the plasmodium, and treatment by quinine and arsenic was quickly followed by recovery.

Direct syphilitic infection of the cornea is rare and while ulceration may occur in a syphilitic person it is probably due to the weakened physical condition which cannot withstand local infection from other causes. Constitutional treatment as well as local is of course necessary in such cases.

Subconjunctival injections for corneal ulceration are highly extolled by many men prominent among whom is Darier, of Paris. Various preparations of mercury, such as the bichloride and cyanide, have been frequently used and apparently

with excellent results. Injections of physiological salt solution have caused improvement in old corneal ulcers by improving the circulation and therefore the nutrition of the parts. Darier says, for myself, three agents should be our first and most certain adjuvants, because they are absolutely harmless. (1) Dionin in powder applied to the ulcer, (2) subconjunctival injections, (3) serumtherapy."

The actual cautery is often used for disinfecting a corneal ulcer, but the difficulty of controlling its action is regarded by some as a serious objection, however, in these cases when the cornea seems to be ~~actually~~ melting away this method of treatment would seem to be ~~the~~ most effective. I am convinced that the suppuration which sometimes follows the operation for cataract, and which not infrequently begins at or quickly involves the inner edges of the corneal wound can only be stopped by the boldest application of the actual cautery to the entire length and breadth of the incision without and within the eye.

Finally it may be said that cornea ulceration will not occur as long as the epithelial layer remains intact.

That when an abrasion occurs it should be carefully watched and treated as a most serious condition.

That any signs of ulceration should at once be combatted by a thorough disinfection of the part even though sound tissue must be sacrificed to stop the advance.

That the general condition of the patient often requires upbuilding in order that convalescence may continue to recovery. That rest in bed is imperative in all serious cases.

Tact may be defined as the ability to favorably impress and adroitly manage other human beings. Tact is largely intuitive, but can be developed by effort and exercise. It is one of the most desirable assets for business and professional men, and is usually most marked in individuals with an equable and well controlled temper—that even temper or equanimity which should become a fixed characteristic of advanced life.—*Denver Medical Times*. August.

PREVENTABLE BLINDNESS.

BY EDWARD F. PARKER, M. D., Charleston, S. C.

Unnecessary blindness is due to "ignorance of the conditions which produce blindness", ignorance of the proper care of the eye in the school room and ignorance of the delicacy of the organ of sight."

Knowledge and promptness in the practical application of it are the two great factors in diminishing the efficiency of these causes. The medical profession has always been constantly alive to the importance of extending its knowledge and of giving it to the public, but we cannot too often call attention to a subject of vital importance.

The census report shows that in the United States blindness is more common among males than females, is distributed irregularly in proportion to the population and the degree of education, is in greater proportion among the foreign than among the native born, is frequently produced before the age of two, and is prevalent among all races and conditions.

Statistically we may classify blindness as due to:

1.—Diseases causing corneal opacity, affecting chiefly children and traceable to severe inflammations of the conjunctiva and cornea.

2.—Venereal and other diseases affecting the iris, ciliary body and choroid.

3.—Nervous diseases caused by errors of refraction and diseases of the brain and spinal cord.

4.—Congenital diseases.

5.—Accidental Causes.

We may estimate that one, two and three are responsible for about 75 per cent and four and five for about 25 per cent, of the total blindness in the world.

Clinically we may classify blindness as preventable and inevitable.

Ophthalmia neonatorum.

Read before the S. C. Medical Association, Summerville, S. C., April 1909.

Trachoma.

Purulent conjunctivitis.

Congenital Syphilis.

Sympathetic inflammation.

Occupation diseases.

Accident in work.

Accident in play.

Congenital defects.

Optic nerve diseases.

Accident in work.

Accident in play.

In numerical importance we may place ophthalmia neonatorum first, congenital diseases second and trachoma third.

Considering the preventable causes of blindness, we find that "one-quarter of all the blind children in all the blind schools of this country are unnecessarily blind."

Ophthalmia neonatorum is a contagious disease appearing at birth preventable by prophylactic measures, curable by skilled medical treatment, fatal to eyesight and ending in total blindness if preventive and curative measures are not taken.

The prophylactic treatment recommended is a few drops of a one per cent solution of silver nitrate to be used in the eyes of all new born children and the curative, thorough cleanliness with the aid of boric acid solution, a 25 or 50 per cent solution of argyrol, or a 10 per cent solution of protargol and atropine when indicated.

Trachoma is a contagious disease, insidious in its inception, chronic in nature, easy to diagnose and curable by the operation of expression and suitable hygiene.

Purulent conjunctivitis in the adult is usually due to gonorrhoea and curable by the use of cleanliness, atropine, argyrol or protargol solutions. Only a small percentage of patients with gonorrhoea are advised and warned of the danger of eye infection by the general practitioner.

Congenital syphilis, responsible for a large number of cases resulting in

blindness, is too frequently suspected and if promptly treated with injections of mercury might easily be minimised as a potential factor. Its prophylaxis is one of those sociological problems with which the world is trying to deal intelligently.

Sympathetic inflammation, or the involvement of a good eye from metastasis, is curable by prompt removal of the offending eye and preventable by prompt recognition of the danger to the eyesight of one eye from the presence of another damaged infected eye.

Occupation diseases admit rational prophylaxis which, largely from indifference on the part of the individual, is not often undertaken.

In the accidents in work and in play the liability to infection even in the simplest injuries is not duly appreciated by the general practitioner. Thorough disinfection of the wound, the prompt use of atropine to dilate the pupil, frequent cleansing with boric acid solutions and keeping the eye at rest with a suitable bandage would save the eyesight to many sightless eyes.

Inevitably, congenital defects, diseases affecting the optic nerve, and accidental injuries will always result in incurable and unpreventable blindness. Many eyes are injured by the use of patent remedies and harmful or useless domestic remedies.

"The failure on the part of the general practitioner or oculist to distinguish between diseases requiring opposite treatment such as iritis and glaucoma and the neglect of apparently slight inflammation of the eye are too often the cause of blindness."

"In spite of all our knowledge the preventable blindness continues year after year and as the roughly estimated cost to the state of a person blind from birth and dependent through life approximates \$10,000", it is primarily a matter of large concern to the state because it assumes the burden of caring for those who are blind and helpless.

In South Carolina there are 77 white and colored males and females, the majority males and white in the Institution for the Blind and Deaf at Cedar Springs. In 1900 census shows 491 white and 611

colored blind people.

Up to this time ophthalmia neonatorum is the only one of the causes of preventable blindness which we attempt to control by state regulation.

In accordance with the plan approved by the American Medical Association, it is proposed to organize the work of preventing blindness from this cause by the concerted efforts of representatives of each state from the section of ophthalmology and the plan proposed is,

"That through the state the work be taken up in each county society and be presented at its next regular meeting by some of its members; and that the sanitary measures be considered; the care of the discharges of mothers, the bath of the child; the danger of the general bath which Schermier calls "Gift Wasser"; the necessity of bathing the eyes with clean a solution not otherwise used, and such other points as may be important; in other words, the general sanitary measures needed to protect the eyes of the child."

2. That the importance be emphasized of the greater protective value of antisepsis over asepsis, which is in full accord with modern medical practice.

3. That it be shown that the use of a prophylactic is a protection to the physician, as whatever may subsequently occur he will have followed approved measures and will have taken the necessary precautions while failure to do this leaves him justly open to censure.

4. That the State Society endeavor to secure that written assurance on the part of each member of each County Society that he will use some measure of antiseptic care in each case that comes under his charge, unless there be special reasons why he should not do so and that these appear upon the birth certificate.

5. And, finally that through the co-operation of the State Medical Society and the Department of Public Health authority may be secured with an adequate appropriation to enable the department to manage this as it manages other infectious diseases, obtaining reports of the number of cases occurring with the results, sending out educational matter, and providing for the gratuitous distri-

bution of the prophylactic."

This committee of which I am the member from South Carolina is desirous of obtaining the following information,

1. "Of any laws enacted or proposed governing the practice of midwifery or the reporting of cases of ophthalmia neonatorum. Are physicians required to report this disease? Are prophylactics provided by the health department for gratuitous distribution?

Do the regulations provide for the early registration of birth certificates whether a prophylactic has been employed and when omitted the reason for its omission?

2. Have any special resolutions been proposed or action taken by the Medical Society for the control of this disease?

Have any measures been taken to determine how large a number of new-born children have been infected? and who is responsible for these infections?"

To all these questions (save the first) the State health officer and the health officer of Charleston answer negatively.

South Carolina has never authorized the collection of data such as birth and death rates and the vital statistics necessary to the intelligent classification and study of the distribution and regulation of disease among its people and is just beginning to provide the Board of Health with sufficient funds to exercise in part its proper functions.

DISCUSSION.

on papers of Drs. Jersey, Kollock and Parker.

Dr. Rosa H. Gannt.

I am very glad to have heard these papers, and I think we ought to have more papers read on this subject. I am glad to learn also that there is public legislation on the matter, and at the same time I am sorry to know that the laws are not enforced. Several days ago, I had a patient brought to me with a case of ophthalmia neonatorum. This case had evidently been treated by the physician in charge of the case with salt water. This was one of the most pathetic cases I have ever known. The parents, of the child had been married five years and this was their first child, and the case

was absolutely hopeless, and it was my painful duty to tell the parents that their child was blind.

I feel that if we had more papers and more discussion of this subject, that the general practitioner would be more careful, and more able to diagnose his case, and if unable to properly treat the case, would refer it to a specialist. This physician I referred to, who had charge of the case I mentioned, was within a radius of 20 miles of six specialists.

Dr. M. B. Monson.

The reason I want to discuss this paper is because all seem to think that all cases of ophthalmia neonatorum in the new born were due to the carelessness of the general practitioner, and I think that three fourths of the work done to the babies in this state is done by ignorant negro women. The paper just read gives us the maximum of cases produced in the State Institution for the Blind and this is not all chargeable to the neglect of the general practitioner. There are other points I would like to discuss, and I hope all will take part in the discussion.

Dr. W. Peyre Porcher:

I want to say something in regard to Dr. Parker's paper. I have been helped out of too many holes by my old friend nitrate of silver to have him cast aside without saying a word in his behalf. Now, I would try not to belittle any new preparations, but we all know that some of the cases of pink eye, or whatever you want to call it, are very often intractable and I sometimes worked with it for quite a while without obtaining satisfactory results, until I used nitrate of silver when the desired result would be obtained.

While I am not belittling other remedies, I do not want to see nitrate of silver cast in the shade. I think it is a good thing in cases of conjunctivitis.

Dr. E. F. Parker:

Replying to Dr. Monson, I want to say that I did not intend to knock the general practitioner. I was knocking the oculist as much as the general practitioner. They make mistakes also, which result in some of the cases of blindness which we have.

I also wish to say that I did not say anything against nitrate of silver. Dr. Porcher says he does not want to see nitrate of silver put in the shade. He is mistaken about that; you have to keep it in the shade or it is useless.

In regard to the paper on corneal ulceration I was very much interested in the classification of the different forms, but it seems to me that all of the various forms of corneal ulceration could be classified as one for, at the present time, we have only one treatment for it, and that treatment is simply dependent upon a general principle. I think we all cleanse them, and I think we all differ as to the method of disinfection. It is the result of my experience and the experience of others, that has caused me to abandon all other methods except the actual cautery, which I apply very easily after heating the instrument over an alcohol lamp, and I very seldom employ the incision. I think when the trouble has gone far enough to make an incision necessary for the removal of pus, that the eye is practically gone already.

Dr. A. B. Knowlton:

I just wanted to say that, if we could secure a less night-rate of indulgence for the people, we would have less use for nitrate of silver.

Dr. E. W. Carpenter:

I was very glad to hear the explanation of the appearance of this paper in the surgical section. I think there are very few men in the surgical section who come in contact with this disease. The general practitioner is the man to be educated as to his responsibility and to sift the matter down to the bottom, I think not only the medical profession, but the laity should be educated in their knowledge of this disease, so that they will hold the physician as criminally responsible for mal-practice, if he permits for even an hour, purulent disease to remain without the most efficient treatment that can be secured for it. The poverty of the patient is no excuse for neglect. If the specialists are not in touch with them, there should be some way for the uplift of humanity, so that the general practitioner should be in-

structed.

I think I see the day when post-graduate instruction will be universal, and there will be no practitioner so antiquated as to tell the nurse to bathe the eyes with salt water, and sees the patient in a few weeks, either totally blind, or disfigured for life.

I say this in no spirit of animosity, but with the feeling that the responsibility in these cases rests with the physician. I concur in all the speaker has said in the essential points, he has brought out, but he did not enter into details and I believe he stated that he did not purpose to do so.

In reference to the second paper, I take it that the speaker prepared this paper for the oculist, and from the stand point of the oculist, it is an admirable paper. He has left nothing unsaid which would add force to it, but from the standpoint of the general practitioner, I differ with him. He advocates the universal use of atropine in corneal ulcers. I should say for peripheral perforations, eserrine should be recommended for use by the general practitioner, because atropine often sets up a glaucoma. He mentions dionin, which is a very useful drug. He advocates bandaging the eye, and I think we all agree with him in that. I think there is perhaps nothing which gives us such pleasing results as to fill the cul-de-sac with bi-chloride vasaline in the intervals between the washing.

Dr. Charles W. Kollock:

Dr. Parker mentioned the passage of a law by the State on this question and to show you how hard it is to get a law passed and to get it enforced, I will tell you that in 1900 the American Ophthalmological Society appointed a representative in each state, in which they had members, to go before the Legislature and get a law through for the Prevention of Blindness. I was appointed from this State and, after explaining the matter to the State Medical Association I was elected to go before the Medical Committee of the Legislature. They asked me why I had come there to get such a law through; they said it might do for people in the cities but there was

no need of such a law for people in the country. I replied that the last case I had was in the country. After much talk, they agreed to recommend the passage of this bill, and Mr. Bacot took charge of the bill for me, and to show with what respect the bill was treated, it was known as "Bacot's sore-eyed Baby Bill."

The Bill was finally passed, and it was ordered that copies be struck off and sent to every health officer and committee in the State. That has never been done.

I think this Association should request that the Secretary of State have copies of this Bill made and sent as directed to all towns of one thousand inhabitants. They would not agree to let the bill affect towns with less than 1,000 inhabitants. Did you ever hear anything so ridiculous?

As far as the Saemisch operation is concerned, which Dr. Parker speaks of, it is an old operation, but he is mistaken in thinking it is not used by the best men now. In the latest book on the treatment of Diseases

of the Eye, it is mentioned in many places. We frequently do not let our patient's eyes get in the condition that makes the operation necessary, because we understand the treatment better than we did some time ago, but the cases of hypopyon keratitis, that are rapidly getting worse, the operation is to be recommended, as it lets out the infected matter relieves the patient, often stops ulceration and the eye gets well.

Dr. Carpenter mentioned the use of eserine. That is an old theory. I admit that there are some men who advise its use, but it is an old theory and it won't work in practice. The man who puts eserine into an acutely ulcerated eye, will make it worse.

Now, nearly every man has his own method of treating these cases, and I think it is best to say that in view of the fact that one man gets good results with one drug, and another man from another, that after all, it is the thoroughness with which the treatment is applied, and not necessarily the use of one particular drug or treatment that brings about the desired result.

MUSCA DOMESTICA; THE COMMON HOUSE FLY.

BY F. A. COWARD, M. D., Columbia, S. C.

The fly, like the poor, we have with us always. Of all the species of flies which swarm about and over us and our food before and after its digestion, the common house fly is by far the most numerous, forming 98 per cent of the total, and being world wide in distribution.

Aside from its role as a carrier and a spreader of disease, its filthy habits, the annoyance of its presence on our bodies, and the disgust which its contemplation inspires are themselves sufficient to demand its extermination. Against which array of damaging evidence its single defense, that of its role as a scavenger, is totally inadequate and negligible on the

ground of inefficiency.

The preferred breeding place is moist horse manure, but cow dung and human excrement also serve its purpose, likewise any other decomposing animal or vegetable filth wherever the proper conditions of warmth and moisture exist.

The female lays 120 eggs in manure. In eight hours the larvae are out of the eggs. In ten days the development of the brood is complete. Therefore, fifteen broods a season may be developed in the climate of this state; by the first of June the offspring of twelve flies that have hibernated through the winter may number 40,000 under favorable conditions.

Howard has observed 200 larvae in a cubic inch of horse manure; 1200 to the pound would be a low estimate.

The sudden swarms observed in the spring are explainable in this way. A ten-day or fortnight period of warm weather is sufficient for the winter's survivors to propagate a brood. The adults hibernate during the winter indoors, in crevices, closets and warm parts of the house and should be exterminated then and vigorously pursued. Any rise of temperature stirs them to activity.

Authorities differ somewhat as to the range of any individual fly, while, when favored by winds they may travel many miles, perhaps, this is accidental. As a rule flies do not exceed a few hundred yards in horizontal, nor a hundred feet, in vertical range, corollary, if you have flies, they are yours, or at most, your neighbor's.

The life of the fly is naturally short, a few weeks ordinarily, but in the dormant hibernating stage they readily live through a winter period of several months.

So well is the activity of the fly as an infection vehicle now understood that I shall pass it with the observation that the fly's method is a mechanical one, infectious matter is carried on its body, legs, and sucking apparatus, also examination of the familiar "flyspeck" shows that the feces of flies fed on various disease germs contain these germs in viable and virulent condition.

For the reduction or perhaps extermination of this nuisance we must have first a spread of the above knowledge among the proletariat and laity generally, and medical men are the ones to take the initiative. Let us all then, beginning today, begin with one accord to preach the gospel of fly extermination and first of all in our own home.

Doors and windows should be screened, and above all, kept shut. The absurdity of an open screened door or window is as apparent to the mind as it is frequent to observation. Darken rooms, especially dining rooms, for as many hours as possible. The fly loves light, it acts on him like champagne, as his morning liberties with our ante-breakfast slumbers will testify.

Manure of every sort should be removed from premises and not kept

stacked in piles, remove it immediately at that. Every stable should have a dark manure closet, with an inside door to the stable through which each day's accumulation may be passed to the closets, and an outside door from which the contents may be removed, less frequently perhaps, yet as often as practicable. Both doors should be fly tight and kept closed the ventilator pipe should have a cap of gauze, which should be removed when broken. Abundant use should be made in the stall and closet of chloride of lime, isolated droppings about yard, should be immediately removed or buried, and other animal and vegetable filth, refuse, old papers, etc., removed as fast as formed or observed. After the first great clean-up these measures will not require labor out of proportion to the benefit derived.

Privies must never be open beyond a tight door should be fitted and kept shut, covers that should fit should be made for seat openings and kept on, doors should fit and be kept shut and the ventilator opening should be screened abundant use of chloride of lime and frequent cleanings are imperative, no privy vault or surface closet without box or or pails should be permitted under any circumstances. The best design is that of a cement vault, its bottom slightly above ground level and its walls high enough to keep out surface drainage. A portion of the vault extending outside the building far enough to permit cleaning is covered by a tight fitting trap door. To combat carelessness of children and employees, all doors and traps should be fitted with automatic apparatus, or springs or weights of some kind.

The use of fly paper and traps is a by no means valueless adjuvant in the fight, particularly in cool weather, when the comparatively few hibernators may be fought with more success.

Let us then go out with the slogan—kill the fly wherever you see it, bury, burn or banish all filth, shut a screen door or window whenever and wherever you see it open or whosoever it may be, and keep the lid on the privy seat.

THE PREVALENCE OF PELLAGRA IN THE UNITED STATES.

A Statistical and Geographical Note with American Bibliography.

BY C. H. LAVINDER, M. D., Passed Ass't Surg'n, U. S. Public Health and Marine-Hospital Service,
 C. F. WILLIAMS, M. D., Secretary South Carolina State Board of Health and State Health Officer
 and J. W. BABCOCK, M. D., Physician and Superintendent State Hospital for the Insane,
 Columbia, S. C.

Forty-five years ago two cases of probable pellagra with mental symptoms at the annual meeting of the Association of Medical Superintendents of American Institution for the Insane held in Washington, D. C. Exclusive of one case Institution for the insane held in Washington, D. C. Exclusive one case reported by Dr. S. Sherwell of Brooklyn, N. Y., in 1883 and one each by Dr. Sherwell and by Dr. H. F. Harris of Atlanta in 1902, the disease has till recently 1906-07 either disappeared or been overlooked, or what is more likely the physician when first studying one of these puzzling cases and inclining to the diagnosis of pellagra has accepted too readily the assertion of all authorities that pellagra does not exist in the United States, and has therefore given another and commoner name to his case (See final note) although his professional conscience may never have been satisfied. There seems, however, to be no doubt that some physicians—for one Dr. H. E. McConnell of Chester, S. C.—did recognize the disease termed pellagra during 1903, although unfortunately he did not publish his observation. According to E. J. Wood of Wilmington, N. C. & H. Bellamy of Wilmington and J. R. Light of Lincolnton, were the first to recognize the disease in North Carolina prior to 1907, but again unfortunately they did not publish their observations.

In spite of authoritative denial of the existence of pellagra in our country, a number of cases of the disease were recognized and reported independently in 1907 by medical officers of Alabama and

South Carolina asylums. In the summer of 1908 the disease was identified with Italian pellagra by South Carolina physicians, Dr. J. J. Watson and one of the present writers (J. W. B.), who visited Italy for the purpose of studying the disease. Following these observations and publications, pellagra has been recognized in many different localities, such as Wilmington, Moreanton and Charlotte, N. C., Augusta, Milledgeville and Atlanta, Ga., and many places in South Carolina as well as in other states. For the past year and a half, the South Carolina State Board of Health has been actively investigating the pellagra problem, by special inquiry, conference and finally by original research with the co-operation of Surgeon General Wyman of the U. S. Public Health and Marine-Hospital Service, who assigned (May 1909) one of the present writers (C. H. L.) to duty at Columbia and vicinity for this purpose.

Recently a letter of inquiry (See below) about pellagra was addressed by another of the present writers (C. F. W.) to the Superintendents of State Hospitals for the Insane in the United States, and the following table embodies their replies:

To 164 inquiries 120 replies were received about 20 being in the affirmative.

New York. Number of cases, few (near Brooklyn.)

Pennsylvania. Dixmont. Number of cases, 1; recognized 1909 (Hungary). Maryland. Number of cases 1 or 2; recognized 1909; probably existed since 1905, male 1—female 1.

Virginia (Staunton) Number of cases 1 (?); recognized 1908.

Virginia (Petersburg) Number of cases 1 (?).

North Carolina (State Hospital, Ra-

Read at the Abbeville Medical Society's Pellagra meeting, Abbeville, S. C. August 6 '09.

eigh) Number of cases, several; recognized 2 or 3 years probably existed 10 years.

North Carolina (State Hospital, Goldsboro) number of cases 8 recognized 1908; probably existed 10 years; female 8.

North Carolina (Dr. Taylor, Morgan-ton) Number of cases, 8; probably existed 22 years.

North Carolina (State Hospital, Moriganton) Number of cases 20; probably existed 5 years.

North Carolina (Dr. Wood, Wilming-ton) Number of cases 75 in State since 1905, and 43 were females and 15 were white.

North Carolina (Dr. Nisbet, Charlotte) number of cases 18, whites 16, negroes 2.

South Carolina (State Hospital, Columbia) Number of cases 125; recognized 1907; probably existed 25 or 30 years; male, 25 per cent; female 75 per cent.

South Carolina (Dr. Corbett, Green-ville) Number of cases 3.

South Carolina (Dr. McConnell, Ches-ter) Number of cases 13.

South Carolina Dr. Neuffer, Abbe-ville) Number of cases 9.

South Carolina (Drs. Neil and Epting, Greenwood).

South Carolina (Dr. Robt. Wilson, Jr. Charleston; Roper Hospital) Number of cases 15, 11 colored; 4 white—9 females; 6 males. Conservative estimate of num-ber in city in past year, 30.

South Carolina (Dr. Williams, Colum-bia) Number of cases, 500 estimated in State.

Georgia (State Sanitarium, Milledge-ville) Number of cases 225, recognized 1907; probably existed about 25 years; male 25 per cent; female 75 per cent.

Georgia (Grady Hospital, Atlanta) Number of cases 10; recognized 1907.

Georgia Dr. Moore, Augusta.)

Florida (State Hospital, Chatachoo-gee Number of cases 12; recognized 1907; probably existed 4 years—male 5; female 7.

Alabama (Brice Hospital, Tuscaloosa)

Number of cases 25.

Alabama (State Hospital, Mount Ver-non) number of cases 160, and 2 pri-
vate; recognized 1906, probably existed
since 1906, male small number; female,
large number.

Alabama (Dr. G. H. Searcy, Tusca-loosa) Estimate number of cases in State
150 to 200.

Mississippi (State Hospital, Jackson) Number of cases 1; others in the State.

Mississippi (State Hospital, Meridian) Number of cases, 2; recognized, 1907 (?) male 1—female 1.

Louisiana (State Hospital, Pineville) Number of cases 3. Dr. Thomas, Sept., (July 28th-09) expresses the belief that
this disease is as common in Louisiana as
it is in the Carolinas.

Tennessee (Baptist Orphans Home, Nashville) number of cases 11. Other
cases in the State.

Kansas (State Hospital, Topeka) number of cases 6 (?) probably existed
15 years, male, 3 female, 3.

Kansas (Epilept. Colony, Parsons) Number of cases, 1; probably existed,
Native

Illinois Since this report was first
made, one of the writers (C. H. L.) has
(July 19th-09) identified 3 cases of
pellagra at the Cook County Asylum at
Dunning, Ill. In the last year or year
and a half six other fatal cases have been
under care there.

This table seems to show that there
are records of at least 1000 cases of
pellagra scattered in 14 States. More
than half of these have been reported
from asylums or similar institutions.
Sporadic or suspected cases have also
been reported from Texas and Arkansas
as well as from New York and Vir-ginia.

Dr. E. J. Wood of Wilmington, N. C.,
has records of 300 cases in the South, 70
of which occurred in North Carolina.
It has been estimated that many hundred
cases exist in Georgia, and Dr. Walker
of the State Sanitarium, Milledgeville,
says that 2 per cent admissions in 1908
had pellagra.

One of the present writers (C. H. L.)

has reported to the Surgeon-General of his service a conservative estimate of 1500 cases in the Southern States, since 1900. To show how conservative this estimate is it should be recalled that if 500 cases have been observed in asylums in the last two or three years; then upon the estimate made by the Italians that only ten per cent became insane the total number of cases would be nearer 5000 than 1,500.

The asylum officers in Maryland have not observed cases, but Dr. W. S. Thayer of the Johns Hopkins Hospital has recently recognized and reported a case of the disease in Baltimore, and is satisfied that he observed a similar case several years ago (1905).

Nor does the disease seem to have appeared in the Tennessee hospitals for the insane, but 11 cases of pellagra have been reported as occurring in the Baptist Orphans' Home at Nashville.

Dr. Dewing of the Long Island State Hospital, Flatbush, Brooklyn, N. Y., reports that he has had no cases of pellagra in his hospital, but a few cases apparently from other sections of the country" have been observed in his vicinity.

One of us, Dr. C. H. Lavinder observed in New York, in 1908, a case of the disease in a white American seaman in the coastwise service.

Although not within the boundaries of the United States, it deserves passing note that Dr. B. K. Ashford has reported (N. Y. Med. Jour June 278-08 page 1239) the observation of one case in Porto Rico, and Dr. J. A. Hayne has observed two cases on the Panama Canal Zone.

While absolute accuracy is not claimed for these statistics, they may be regarded as a fair indication of the extent and distribution of pellagra, as now recognized in our country, and their presentation at this time is made for the purpose of emphasizing the growing importance of the pellagra problem in the United States.

The following interrogations were used by one of the present writers (C. F.

W.) in gathering statistics of pellagra:

1. Have you seen any cases of Pellagra in your Institution or your State?.....
2. How many cases have you seen?..
3. How long since you recognized the disease?.....
4. If at all, how long do you think the disease has existed in your section?....
5. What proportion were male.....female?.....
6. What was the occupation of these affectedNationality.....
7. Do the products of Indian Corn (hominy or meal) form a part of the dietary of the patients, and are these products derived from native or shipped corn?.....
8. Were your patients from the poormoderate.....or well-to-do classes.....and were they from the city.....town.....or country?.....

M. D.

Supt.....

State of

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- Note—There seems little doubt that the condition now recognized as pellagra has existed in the Southern States for many years—25 or 30 at least, and has been regarded as an unusual manifestation of either tuberculosis, syphilis, malaria, acute chlorosis, spinal hook-worms, dermatitis, exfoliativa, eczema, etc. Careful search through medical literature may disclose the fact that cases of pellagra have been reported under these or other diagnoses.

THE ETIOLOGY OF PELLAGRA.

BY C. H. LAVENDER, Past Assistant Surgeon, U. S. Public Health and Marine-Hospital Service.

Pellagra has become of interest to American medical men only since 1906, and even now it is of practical importance chiefly to only one section of our country. Its appearance, however, as experience in other countries has amply demonstrated, is a matter of much gravity, and the question may in time assume the proportions of a national calamity.

A disease of this endemic-epidemic type is naturally of great interest to me as an officer of a national public health service and of course my more direct interest lies, for a like reason, in the direction of its etiology and epidemiology. Our experience with the disease in America has not been extensive, and our literature, although rapidly increasing, is as yet of small volume. It is my purpose in this paper then to attempt only a brief, general review of what is known regarding its etiology.

The etiology of pellagra in any definite scientific sense, is essentially unknown. In the words of a recent Italian writer, "the actual knowledge of the cause and nature of pellagra, one may say, remains still within the realm of hypothesis, although an extraordinary, scientific activity on the part of students, especially Italian students, has thrown light upon many important points." In spite of this fact, however, even a brief review of the extensive literature will soon convince one that profound convictions are held as to its nature and cause by the vast majority of students of this interesting disease.

The very early views entertained as to the nature and cause of pellagra, such as its being an atypical expression of leprosy, syphilis or scurvy, while interesting, possess now perhaps only historic value. For, with the exception of a small group of students, to whom I shall refer later, doubt is expressed that the disease is a

distinct entity with its own peculiar morbid phenomena. Indeed, its unique symptomatology, its anatomical lesions, epidemiology and geographic distribution seems to leave no doubt upon this point.

With regard to the cause of pellagra, throughout all of its literature, there stands one supreme idea or theory, which permeates almost all authors, directs most research work, and upon which is founded practically all attempts at its restriction or eradication. This idea is the etiological relation declared to exist between pellagra and the extensive use of maize, or Indian corn, as an article of food.

This idea seems to have arisen very early in the history of the disease, and such a suspicion may possibly have been entertained by even Casal himself (who is credited with first having described pellagra). Indeed, there are authors who are inclined to maintain that pellagra was known before Casal's day, and that even then suspicion had fallen upon maize as its cause. At any rate, the idea in a vague sort of way was an early and persistent one. It was perhaps first formulated early in the XIX century by Marzari, who believed that maize caused the disease by reason of its deficiency in certain nutritive qualities. Thus later came into tangible existence the great maize theory of pellagra and the final creation of the so called "zeist," from *zea mays* and "antizeist" schools of thought. The maize idea in one form or another has ever since held a dominant place in the etiology of pellagra.

Following its definite enunciation, the maize doctrine more or less rapidly began to undergo a development and a modifi-

* Arnould, J., in Dict. Encycl. d. Med. Par. 1886, V. 22, p. 316. D'ailleurs Casal entrevit aussi l'étiologie; il pense ab uterisque atmosphera et cibis, exurgere totalem ipsius morbi causam.

cation which has continued up to the present time, with a consequent bewildering variety of opinion.

The first important step in its evolution was the announcement of Balardini's "verderanie" theory. This observer noticed on the grain a greenish discoloration, shown later to be a growth of *Sporosorium maydis*, and he conceived the disease to be due to this hyphomycete. This introduced a new phase of the maize idea attributing the disease not to the maize per se but to spoiled or damaged maize. Largey through the labors of Lombroso, who was doubtless stimulated by Balardini's conception, this idea was later developed broadly, and so ultimately came into existence what is sometimes called the "zeitoxic" school, which maintains that not in maize but spoiled maize (i. e., maize which under the influence of bacterial growth has undergone some change) must the cause of pellagra be sought.

It seems unnecessary to trace step by step the evolution of the maize doctrine, and it will perhaps serve every purpose to state briefly the present views held by various writers on this subject. But before doing so it may be perhaps more logical to state with equal brevity the general grounds upon which is based an etiological relation between maize and pellagra. The broad statements may be given as follows:

1st. It is declared that history and observation show clearly that the first appearance of pellagra and its later dissemination followed more or less closely the introduction of maize culture into Spain and its gradual spread to France, Italy and other countries of southern Europe.

2nd. It is declared that pellagra is found as an endemic disease only in those countries where maize is grown and extensively used as an article of diet by the poorer, rural classes. It is of importance to note on the other hand that the area in which pellagra is found endemic is but as a spot on the extensive area over which maize is found under cultivation. There are vast tracts where maize is, and has been grown and used as food for many years and yet no pellagra has appeared. This matter of much import with regard to the etiological role which

spoiled maize is supposed to play.

3rd. It is declared that countries in which maize is not grown or used as food or only exceptionally so used even though contiguous to pellagrous sections or actually surrounded by them, are free of pellagra. There are numerous striking instances of this kind reported in the literature of pellagra (see Lombroso, Procopio, Babes and Sion, and others).

4th. It is declared that a change of food either among individuals or groups of individuals brings constantly a diminution or disappearance of pellagra, or vice versa. There are also many reported instances of this kind. Most writers claim that recovery may take place, or amelioration occur in the condition of pellagrins by removing from their diet all maize and maize products. The case of Corfu in this connection is regarded as such a notable instance that it may bear quoting. Typaldos states that pellagra was unknown on this island prior to 1857 and up to that time the inhabitants grew their own maize, which was of fine quality, but for economic reasons the culture of grapes became almost universal, and they began to subsist on an imported maize of very poor quality, i. e., spoiled maize. Pellagra followed and became endemic, and in 1866 he found 81 cases there.

Now to return to the various modifications of the maize theory; if we disregard some of the finer distinctions, they may perhaps be grouped as follows:

1st. The idea that maize as a food stuff is wanting in proper nutritive value.—This conception is in reality no longer held, having been rather effectually discredited by many careful analyses of maize which show that this cereal possesses highly nutritive value, is rich in fats and nitrogenous substances and is easily assimilable. In food value, it compares very favorably with rice for example, which constitutes a staple article of diet among a numerous class of people who do not suffer from pellagra. Pellagra, is, moreover, not infrequently found among well nourished individuals, and its symptomatology is not that of inanition.

2nd. The idea that good sound maize contains certain toxic substance which cause pellagra—This is another view that has been largely discredited by the ab-

sence of pellagra in so many places where maize is and has been for a long period extensively used as food.

It is also worth while to note that the gross distinction between sound and spoiled maize is in the opinion of many able observers not easily determined. Maize by reason of its high fat and nitrogenous contents seems quite subject to change under the influence of bacterial growth, and the grain which may appear perfectly sound can, nevertheless, be shown to be spoiled or damaged to a greater or less extent.

3rd. The toxico-chemical idea that under the influence of parasitic growths (bacteria or moulds) maize may undergo certain changes with the formation of one or more toxic substances of a chemical nature (exogenous poisons). This idea has a host of adherents. It was established through the admirable labors of Lombroso, who has been its great advocate and exponent; and it is perhaps today the most popular of all the various phases of the maize theory. It is not, however, without critics and antagonists, and Lombroso's experimental work and conclusions have been seriously called into question by many able students of the disease.

Lombroso, after devoting more than a quarter of a century to the problem came to the conclusion that certain toxic substances are produced in the maize by the growth of saprophytes on the grain and that the use of such maize induced pellagra. He failed to incriminate directly any microorganism. Investigating chemically the poisons in question, he described three substances a red oil, a highly toxic substance or pellagrozeina, and a resinous substance. Pellagrozeina he found the most toxic of all of these substances, and in its action upon animals very similar to the toxic principles which are held responsible for the production of ergotism. It is probably not a definite substance, and has been said to contain at least two active principles, one tetanizing (like strychnine), the other narcotic (like cocaine).

In animals inoculated with these toxic substances, Lombroso noted such symptoms as wasting, muscular spasms, diarr-

rhea and death; in fowls loss of feathers occurred. He also gave a tincture of spoiled maize to men and observed changes in appetite, some loss of weight, erythemas, desquamation and other skin lesions, with sometimes light diarrhoea.

In the opinion of many, such acute lesions are not comparable to pellagra, and similar conditions may be produced with other harmless cereals submitted to the same process.

A great number of students have accepted Lombroso's ideas in general and followed him in this field, seeking principally to determine the character of the toxic substances produced and the micro-organisms responsible for them. Erba, Hausenmeann, Pellogio, Gosio and Ferrati Mariana, Belmondo, Pelizzi, Tirelli, Babes and Sion and many others have obtained various toxic substances from spoiled maize, but so far, there is not sufficient evidence to call any of these substances specific in their nature. The evidence submitted seems only to show that from spoiled maize various poisonous substances may be obtained which in animals, and even in man, will produce symptoms or changes which appear somewhat like pellagra. On the other hand, it is known that extracts from other grains similarly spoiled, may likewise contain similar poisonous properties.

It is of much interest in this connection to know that Babes and Manicatide succeeded in neutralizing the toxicity of spoiled maize extracts with the serum of cured pellagrins and from a series of carefully conducted experiments concluded that the blood of pellagrins contains a substance which possesses the property of counteracting the toxic action of the extracts of spoiled maize.

4th. The toxic-infective idea that from spoiled maize there is formed within the body certain toxic substances. Neusser advocated the view that under some circumstances there is formed in maize, largely under the influence of the *Bacterium maydis*, a certain "receptive mother-substance," which later in the body underwent a further change. Under other circumstances however he viewed the disease as a direct intoxication.

De Giava, following an earlier idea of Di Donna's attributed great importance

to the action of the colon bacillus on ingested maize. His idea seems to have been that the vegetating properties of this bacillus may become greatly modified on a culture medium of maize, and he claims to have shown the production by the coon bacillus on maize media of a specific toxic substance.

Marie also seems to favor the conception of an autointoxication. After re-viewing with approval Pelizzi's work, he seems to think it reasonable to suppose that the necessary elements in the production of pellagrous symptoms, once in the blood, may decompose there under the action of bacterial ferments ingested with the maize, and undergo toxic transformation. He thinks the toxic substances involved may perhaps be more nearly related to amorphous chemical ferments, and suggests that the pellagrous poison may be polytoxic.

5th. The idea that pellagra is a specific infection derived from maize, whether a mould or bacterium. The flora of maize has been frequently studied and a great number of parasites named and described. Most of these, however, have attracted little attention with the exception of the fact that all may cause changes in the grain upon which they vegetate.

Folowing Balardini's *Sporororium maydis*, which was later discredited, Pari incriminated the maize smut, *Ustilago maydis*. This too was discredited.

In 1881, Majocchi discovered on maize a motile organism which he called *Bacterium maydis*. He claimed also to have found it in the blood of pellagrins. Cuboni later found a similar microorganism in spoiled maize and in the stools of both healthy persons and pellagrins, but in greater profusion in the latter. Paltauf and Heider and others worked with this microorganism, and it was later shown to be the ordinary potatoe bacillus.

In 1896, Carrarioli reported that he had found a bacillus in the blood and stools of pellagrins, which he named *Bacillus pellagrac*. His results have not been confirmed.

In 1902, Ceni declared pellagra to be due to an infection by two moulds, *Aspergillus fumigatus* and *flavescens*—a true aspergillosis.

He claims that the spores of the As-

pergelli, ingested with food, escape through the intestine and locate in the lungs, pleurae, pericardium and pia mater, from which places he has been able to isolate them. an autopsy. He also states that the greatest toxicity of the aspergilli occurs at that season when pellagrous symptoms are most in evidence, and that this corresponds to the "cycle of the annual biologic evolution" of these hyphomycetes. Later, with Besta, he found these moulds to possess a virulent and characteristic toxin, which resides almost exclusively in the spores, and determined that the media on which they grow play but little part in its production. More recently Ceni and Besta are said to have claimed toxic properties for *Penicillium glaucum*.

Tizzoni in a series of recent papers announces the discovery of a specific microorganism, which he calls *Strepto-bacillus pellagrac*. This work has of course not been confirmed.

In his first paper (1906), he states he isolated from the blood and organs of acute pellagrins (tifo pellagroso and frenosi pellagroso) a bacillus which he found pathogenic for the usual laboratory animals, and which in the guinea pig produced very suggestive clinical pictures and anatomical lesions.

In his next paper, working with Panichi (1907) he experimented with rabbits and guinea-pigs by introducing into the stomach cultures of this same bacillus. From these experiments, he concluded that this bacillus had an elective action upon the intestine of any animal, but in the more susceptible guinea-pig, it produced death with an experimental and anatomical picture similar in all respects to pellagra, provided the diet of the animal contained a liberal share of maize.

In his last paper (1908), he views his previous work, and announces the isolation of the same microorganism from the stools and blood of chronic pellagrins as well as from spoiled maize. He describes two distinct strains of this bacillus, easily differentiated, and thinks these strains correspond to different grades of virulence (acute and chronic pellagra); that the symptoms and anatomical lesions produced in the guinea-pig correspond to those of pellagra; that the elective le-

sion is in the intestine, which is always primarily involved; that this intestinal lesion is always followed by a specific, general intoxication, especially manifested upon the nervous system, blood vessels and red cells, and secondarily upon the liver and kidneys; finally, that these toxins show a long period of latency and have a particular affinity for the nervous system, conducing ultimately to its profound disintegration.

So much for the maize theory and its variations. Now when we turn to the "antizeists", we find them greatly in the minority. There are two great facts which we have urged against the maize theory. First and most significant, is the extensive territory over which maize is and has been cultivated and used as food for many generations and where no pellagra has yet appeared. The second is the frequently reported cases of pellagra in which there is no history of the use of maize or its products as food.

The first statement is of course evident, and the "zeitoxic" idea is offered in explanation. The second is by no means always admitted, and has proven the cause of much controversy. Soon after its creation the "zeit" idea met with much opposition, and a group of French thinkers, especially Landouzy and others, reported a number of cases of pellagra where no maize had been consumed. Roussel, the able and ardent French "zeit", sharply questioned their observations and rather effectually discredited their diagnosis, introducing at the same time into the literature of pellagra the now well known term pseudo-pellagra, which he claimed described their cases, as they did not conform to the picture of the true disease. This term pseudo-pellagra has itself been the cause of confusion to some and an object of ridicule to others. Manson speaks of the invention of the comfortable term pseudo-pellagra and scornfully remarks: "The disease is pellagra when it fits in with the orthodox theory, and when it can be connected in any way with maize, but when this is not possible, the disease becomes 'pseudo-pellagra.'

From France, frequent reports have been, and are being made of pellagra without maize, and there has grown up a

school of thought there which denies that pellagra is a morbid entity at all. It is spoken of as the pellagrous syndrome and regarded as a *morbus miseriae* (see Cecconi, Le Fers and others). It is undoubtedly true that there may arise among alcoholics and in cachectic states, especially among the insane, certain symptoms simulating in many respects pellagra, yet such a diagnosis is not admissible, and it is said that a careful study of these cases readily permits discrimination. Certainly, it seems difficult to understand how doubt can arise that pellagra is a disease *sui generis*, when consideration is given to its unique symptomatology, its anatomical lesions, epidemiology and geographic distribution.

All criticism of the maize school, however, is not of this destructive type. At a meeting of the British Medical Association in 1905, Sambon in a remarkable paper put forward the highly interesting suggestion that pellagra may be due to some protozoan, a suggestion which has met with the hearty approval of Manson. The general line of this argument is that an examination of the numerous observations and experiments show one fact clearly, and that is that each investigator claims to have reproduced pellagra either in man or animals, and yet is evident that the disease can have but one cause. It is unwise, therefore, to place too much reliance upon such experiments, and it should not be forgotten, as history amply shows that the interpretation of experiments is often as fallacious as the interpretation of natural facts. The reputed historical facts with regard to the relation between the introduction of maize culture and the appearance of pellagra are called into question and an attempt is made to show that there is historical evidence to prove that maize was grown in Europe long before the date usually assigned. It is pointed out that the area of maize is not cultivated, and that the comparative study of the distribution and prevalence of pellagra at different periods is decidedly unfavorable to the maize theory.

The opinion is expressed that the prevailing ideas as to the etiology of pellagra are very unsatisfactory, and that the maize idea has been much too dogmatical.

cally adhered to by investigators. The suggestion is made that pellagra shows many analogies with such diseases as syphilis, trypanosomiasis and kala-azar. Such remarkable resemblances are noted between pellagra and trypanosomiasis as the characteristic perivascular small cell infiltration, benefit by treatment with arsenical preparations and the mononuclear increase in the blood. It is further suggested that the parasite may be insect-borne, and the erythema of pellagra may be one of those interesting instances of correlation in nature whereby the parasite is enabled to enter some intermediate host, complete its life cycle and perpetuate its existence, such as is seen in the correlation between the night swarming of the larvae of a certain species of *Filagria* and the nocturnal habits of its intermediate host, a mosquito; and that maize, perhaps, may be found to sustain some such relation to the etiology of pellagra as the swamp has been shown to sustain to the etiology of malaria.

In this connection, it is highly interesting to record that Babes and others in a very recent article have reported highly beneficial effects in the treatment of pellagra with atoxyl arsenious acid combined and they have put forward practically the same suggestive idea as Samson's. They state that the almost specific therapeutic action of arsenical preparations as well upon certain protozoal diseases as upon the manifestations of pellagra at least suggests by analogy some conclusions as to a similar etiology. Pellagra they still think, is in all likelihood due to some change in maize caused by parasitic influence, and the idea can not yet be excluded that from spoiled maize not only toxic substance but parasites as well may be conveyed to the predisposed human organism, either directly or by means of insects or other organisms.

From its analogy to malaria, piroplasmosis and trypanosomiasis, diseases having to a certain extent the same geographic distribution, the thought is justified that for the transmission of pellagra some similar intermediate animal host is necessary; and for the intoxication or infection itself, some microscopic animal parasite. Such a parasite must be necessarily very small, perhaps ultramicroscopic, and

although in their researches they found in the erythematous skin only of pellagrins bodies resembling the smallest Negri bodies, yet the results of arsenical treatment encourage new investigations along the lines suggested.

The usually given predisposing causes of pellagra contain some facts worthy of brief mention.

With regard to age, the statements are somewhat discordant, but it is worthy of note that the disease does not occur in infants, and seems to be rare in children. The usual age seems to be about 20 to 40.

Its relations to the seasons and sun, from the characteristic spring erythema, has furnished some cause for discussion at times and the disease has been called the "sun disease", "sunstroke of the skin" etc. The general opinion, however, seems to attribute to the sun only a mild exciting effect in the production of the erythema.

Alcoholism and other depressing conditions exert only the direct influence of lowering resistance, but it should be noted that the toxic substances of spoiled maize are soluble in alcohol and hence alcohol may contain such poisons.

From a review of the literature one would seem justified, at least tentatively, in making the following statement:

The cause of pellagra is essentially unknown.

That the idea in one form or another, of an etiological relation between pellagra and the use of maize as a food, is held by the majority of students of the disease that such an idea is almost as old as the history of the disease itself; and that it rests to some extent upon the observations and experimental work of many able men; and that at the same time it seems unwise to hold to such views so dogmatically as to exclude investigation along other suggestive lines.

That Ceni's work on the direct infection by certain hyphomycetes (*Aspergillus*), and Tizzoni's work with his specific *Streptobacillus pellagrae*, while well worthy of serious attention of investigators, remain yet to be confirmed.

That Samson's suggestion of the possible protozoal nature of the disease rests largely on an argument by analogy, and is at present little more than a suggestion,

although an extremely interesting one. That it offers a new and possibly profitable field for research.

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COUNTY SOCIETY REPORTS.

REPORT- OF PELLAGRA MEETING AT ABBEVILLE, S. C., AUGUST, 6TH., 1907.

... C. C. GAMBRILL, M. D., SECT'Y

Dr. G. A. Neuffer of Abbeville called the meeting to order by stating that as the President of the Abbeville County Medical Society, Dr. J. B. Britt, was a very bashful young man, and could not preside over such a large gathering, he had been requested to preside at this meeting.

After welcoming the guests to Abbeville with a few well chosen remarks, he then introduced Dr. R. B. Epting, who

read a report of six clinical cases, and presented one of his cases. After Dr. Epting's report was concluded, Dr. C. F. Williams of Columbia, State Health Officer was introduced, and read a paper on the "Prevalence of Pellagra" in the United States, "A Statistical and Geographical Note with American Bibliography, by C. H. Lavinder, Passed Assistant Surgeon, U. S. Public Health & Marine Hospital Service; C. F. Williams, M. D., Secretary, South Carolina State Board of Health & State Health Officer; and J. W. Babcock, M. D., Physician and Superintendent, State Hospital for the Insane, Columbia, S. C." This report was listened to with great attention by every one present, and will be forwarded

to the State Journal for publication later. After Dr. Williams' paper was concluded eight clinical cases were presented by Dr. R. B. Epting of Greenwood S. C., Dr. H. E. McConnell, Chester, S. C., Dr. G. A. Neuffer, of Abbeville S. C., Dr. B. H. Carlton, of Donalds, S. C., Dr. C. C. Gambrill of Abbeville, S. C., Dr. L. T. Hill of Abbeville, and Dr. J. C. Hill of Abbeville. About one hour was devoted to examining these cases, and they all elicited marked attention from every professional man present.

At the conclusion of the examination Dr. C. H. Lavinder's paper on the etiology of Pellagra was read by Dr. G. A. Neuffer, Dr. Lavinder being prevented from attending this meeting on account of sickness in his family, necessitating his leaving for New York a few hours prior to the meeting. His paper showed a very thorough study of the subject, and the members present derived much benefit therefrom. It will be presented in the South Carolina Medical Journal in the near future. It deserves the closest consideration of every professional man in the South. Those present regretted very much that Dr. Lavinder could not be present with us, but we feel that we got a great deal from the timely paper which he so kindly sent us.

After Dr. Lavinder's paper Dr. Babcock of Columbia, S. C. was introduced, and read a paper on his observation of pellagra in this country and abroad. His paper was much enjoyed by all present and will be printed later in the Journal.

The next heading on the program was the general discussion of the subject. Dr. Neuffer introduced Dr. H. E. McConnell of Chester, S. C. who is reported to have been the first man in America to diagnose this disease. Unfortunately for him, he did not publish his case and now there are others claiming priority over him.

Dr. McConnell said:—I have nothing new to add to the subject than stated last year at the Conference held in Columbia in November. As stated there I diagnosed the case in 1903, but the patient died. The next case was seen in 1906 and 1907; the patient suffering with sore mouth, which I could not cure, later the

eruption and the gastro-intestinal symptoms appearing, and then I was positive that I had pellagra to deal with. This patient died the day I attended the conference in Columbia.

Dr McConnell then gave us the history of a patient he had treated with all the symptoms of pellagra, in which, in addition to the routine treatment, he had used the Leucrodescent light rays, which seemed to benefit the eruption very much and cured the patient temporarily, but the patient returned from time to time for the treatment, as the eruption seemed to reappear. At the request of Dr. Babcock, Dr. McConnell recited the history of old Mr. Smith, who is 93 years old, and who has had repeated attacks of pellagra, but is still living. Dr. McConnell was asked by Dr. Wideman of Due West S. C. if this man had eaten corn bread all of his life, and the reply was yes, but that he had never drunk any corn liquor. (Applause.)

Dr. McConnell was asked what percentage of his cases were women and his reply was that 75 per cent were females and 25 per cent males. That his female patients had everyone died, but his male patients were still living and that men seem to stand pellagra much better than women. He was then asked if he thought the difference in the present day milling of corn had anything to do with the condition. His reply was that nearly everybody bought bolted meal nowadays, and it was his belief that everyone used damaged maize products, which the prevalence of this disease throughout the country might be attributed to. At this junction of the discussion Dr. Furman asked if any of the patients had suffered with constipation instead of diarrhoea. Dr. Babcock stated that this would be included in his paper.

Dr Isaac Taylor of Morganton, N. C. being called on by the president stated that he came to Abbeville to listen rather than to speak, and that all the cases which he had dealings with were advanced asylum cases of pellagra, and they had passed away. He recalled to mind one case that had been sent to the Asylum suffering with Alcoholic-Morphine-Erythema. This case was confined to the asylum about two weeks and improv-

ed under treatment, but after dismissal developed a typical pellagra rash and died. His next case was one of a mental hysteria from South Carolina who after a few months treatment, passed out of his hands to a physician in Atlanta Ga. and he had it from this physician that she died from pellagra. Dr. Taylor stated in closing that he wanted to thank Abbeville County Society for the interest they had manifested in arranging this meeting, and for the pleasure this meeting had given himself and others in having the opportunity of listening to such a wide and interesting discussion on the subject.

Dr. Mayer of Newberry, S. C. stated that he had had only one case, in fact, had nothing to say on the subject, but as he was Counsellor of the District in which Abbeville was located, he was proud of his district for having displayed such an interest in the subject, and arranging for such a meeting and he was quite sure that it would not only result in good for the members of the profession of Abbeville county, but for the members at large in the profession in the state and out of the state. He further stated that he hoped the secretary of the Abbeville County Medical Society would send a full report of the meeting to the Journal for publication so that those who were not able to attend the meeting would reap the benefit therefrom.

Dr. Wideman of Due West, S. C. stated that he did not think that we ought to attribute the cause of pellagra entirely to eating corn bread. That he knew of several negro women who had eaten corn bread all their lives and had not developed pellagra; and it is a fact that the negroes are having it now who for several years have not eaten corn bread, but who must have their first patent flour,—and the same thing may be said of the whites. He did not agree that the corn bread theory had anything to do with pellagra, and that he had been skeptical ~~as to~~ to the existence of such a disease until about three weeks ago, when he had a case to occur in his practice. This patient had never been a corn bread eater, but one of the flour bread kind. He admitted that he was a recent convert, and hoped that he would not be

a "Peach-sitter," but that he could not swallow all of this corn bread theory that they were trying to give him. (Laughter and Appause.)

Dr. G. Pressley Neel of Greenwood, S. C. said that he had nothing new to add to the treatment of pellagra, but recently he had been trying the berry treatment. He made it a rule to have the patient abstain from corn bread, and use a generous meat diet and fruits. He advised all of his patients to eat all the dewberries, huckleberries, strawberries, cherries and fruits in season and some of them did well on his diet.

Dr. John Lyon of Ninety-Six, S. C. stated that he wanted to call attention to the fact that with one of his patients whom he had to abstain from corn bread had gotten a great deal better, and then on going back to the use of corn bread, had very soon had a relapse. He was then asked, how soon after, did the relapse occur? He stated, the very next day.

Dr. T. L. W. Bailey of Clinton, S. C. here stated an instance of a patient of his who seemed to have an abnormal appetite for corn bread, and that it was all he could do to prevent her from eating it; but so far he had been able to restrain her, but he was afraid he could not do so much longer, but if she ate the corn bread, he hoped to have a report on her case at the meeting this fall.

Dr. Babcock then stated that Dr. Wideman had brought out two of the most important points in the whole matter. The first one was skepticism. He did not believe that we would make any progress in this pellagra study unless we had fighting skeptics in our ranks. He further stated that Dr. McConnell in speaking of pellagra in 1903, did not announce to the world what he wanted to because some of his brother physicians were skeptics.

The second point which Dr. Wideman brought out, Dr. Babcock considered the most important:—That of the corn bread diet.

Dr. Babcock closed the discussion with comments on what others had said. He emphasized the point that diagnosis of pellagra must be made regardless of skin lesion. As to ages the first two pellag-

grins he saw in Italy were a mother and two year old child, both afflicted. Both had been fed on polenta a dish similar to mush. Italian authorities maintain that pelagra is not communicable. He discussed technically the difference between the symptomatology of spew and pellagra.

Those present were the following.

- E. W. Pinson, M. D. Cross Hill, S. C.
- J. M. Carlton, M. D. Mt. Carmel, S. C.
- A. W. Busch, M. D. Lincolnton, N. C.
- B. W. Carlton, M. D. Donalds, S. C.
- J. Lee Young, M. D. Clinton, S. C.
- J. W. Davis, M. D. Clinton, S. C.
- C. D. East, M. D. Goldville, S. C.
- S. G. Miller, M. D. Chester, S. C.
- Jno. H. Miller, M. D. Cross Hill, S. C.
- T. L. W. Bailey, M. D. Clinton, S. C.
- Theo. J. Peake, M. D. Cross Hill, S. C.
- C. F. Williams, M. D. Columbia, S. C.
- J. W. Widemen, M. D. Due West, S. C.
- C. C. Gambrill, M. D. Abbeville, S. C.
- John W. Wickline, M. D. West Union, S. C.
- L. O. McCalla, M. D. Eatonton, Ga.
- J. B. Britt, M. D. Troy, S. C.
- H. E. McConnell, M. D. Chester, S. C.
- P. K. Black, M. D. Mt Carmel, S. C.
- J. E. Edwards, M. D. Spartanburg, S. C.
- J. D. Wilson, M. D. Limestoneville, S. C.
- Isaac M. ... : Morganton, N. C.
- G. Pressley Neel, M. D. Greenwood, S. C.
- E. W. Carpenter, M. D. Greenville, S. C.
- J. R. Bell, M. D. Due West, S. C.
- J. A. Anderson, M. D. Antreville, S. C.
- E. A. Hines, M. D. Seneca, S. C.
- O. B. Mayer, M. D. Newberry, S. C.
- W. T. Jones, M. D. Ware Shoals, S. C.
- F. E. Harrison, M. D. Abbeville, S. C.
- Y. M. Hitch, M. D. Hodges, S. C.
- E. B. Hendrix, M. D. Greenville, S. C.
- E. C. Doyle, M. D. Seneca, S. C.
- W. Townes Jones, M. D. Ware Shoals S. C.
- G. A. Neuffer, M. D. Abbeville, S. C.
- J. B. Townsend, M. D. Anderson, S. C.
- W. R. Doyle, M. D. Seneca, S. C.
- B. W. Cobb, M. D. Greenwood, S. C.
- J. W. Babcock, M. D. Columbia, S. C.
- Davis Furman, M. D. Greenville, S. C.
- John Lyon, M. D. Ninety-Six, S. C.

- L. T. Hill, M. D. Abbeville, S. C.
- W. E. Link, M. D. Willington, S. C.
- W. D. Simpson, M. D. Abbeville, S. C.
- R. B. Epting, M. D. Greenwood, S. C.
- W. T. Landre, M. D. Greenwood, S. C.
- Jno. K. Cevil, M. D. Columbia, S. C.
- W. P. Turner, M. D. Coronaca, S. C.
- W. O. Holloway, M. D. Chappells, S. C.
- W. L. Keller, M. D. Abbeville, S. C.
- J. C. Hill, M. D. Abbeville, S. C.
- W. M. Cheatham, M. D. Abbeville, S. C.
- Dr. J. R. Nickles, Abbeville, S. C.
- Dr. G. E. Calvert, Abbeville, S. C.
- Dr. A. L. Harvin, Abbeville, S. C.
- Miss Clara Hamilton Carter—Reporter, McClures Magazine.

CHEROKEE.

J. G. Pittman, M. D.,

Secretary.

The Cherokee County Medical Society met with the largest attendance since reorganization and it was apparent that each member present felt the desire to make our County organization a strong and effective one.

Resolutions expressing regret at the departure from our midst of one of our oldest members, Dr. C. M. Littlejohn, and hopes for his success in his new field were unanimously approved.

The request of Dr. Gunter, a dentist for membership in our society, was brought before the society and discussed favorably by all. The opinion prevailed that the society would be glad to have all the dentists attend our meetings, but we were in doubt as to our ability to make full members of them under the laws laid down by the State organization. The motion was made and unanimously carried, that the dentists be cordially invited to attend our meetings, and that the secretary take up with the State organization the question of including dentists in membership of our County Society. It would be well for all societies if the question were taken up and discussed authoritatively by the editor of the State Medical Journal, as other County Societies are doubtless faced by the same question.

Next, the question of our national plague, tuberculosis, was broached and the part our County organization should take in combating spread of this fell disease. Motion was made and carried that the President appoint a committee of three to recommend a course of action for the Society to take against tuberculosis and its spread and to report at the next meeting of the Society. The President appointed to this committee Drs. Darwin, Caldwell, and Brown.

The Society then turned to reading of papers and were entertained by Drs. Sherrard and Steedly. Dr. Sherrard said that in lieu of a paper by himself he wished to call attention to a most able article delivered as an address on medical ethics. He read from this article portions that were of most interest to the practicing physician and the time so spent was of profit as well as interest to all who heard it. Dr. B. B. Steedly then read a paper on Methods of Tying Surgical Knots and demonstrated the value—as a time saver in operating—of a rapid and easy method of tying the surgical or reef knot. As he says in his paper, the description appears formidable, as any such minute description must, but his demonstration showed that when the description is mastered the feat is simple and effective as a time saver. He offers in his paper some improvements on the old methods described in the text-book, which he has worked out himself and which very materially facilitate the tying of ligatures and sutures.

The meeting was then adjourned to the first Friday in August.

FLORENCE.

E. M. Allen, M. D.,

Secretary, pro tem.

The Society was called to order at the usual time and place, the President in the chair.

As only the physicians of the city were present the papers for reading were postponed, the regular order of business set aside, the meeting was opened to the general discussion of the hygiene and sanitation of Florence.

There were especially strong pleas

made for the strict observance of the sanitary laws around each individual's premises in order that the town in common might enjoy its benefits.

Dr. McLeod of the sewerage committee for the city explained in detail the working of the new sewerage system that Florence is about to begin to put in. He explained in particular the method of the modern septic tank and filters to be installed, showed the advantage of this system over the old methods of using our rivers, which necessarily made cess-pools of our water-ways.

Dr. McMaster, who has just returned from Antietam, where he has been studying army sanitation etc., gave an interesting talk on sanitary methods employed by the United States Army especially adapted to camp life.

The Society adjourned to meet the first Monday in October, when a paper on Tuberculosis will be read by Dr. A. G. Eaddy, of Timmonsville.

MEDICAL SOCIETY OF SOUTH CAROLINA.

A. J. Jersey, M. D. Secretary.

COLLEGE CHANGES.

Should a Graduate of the Medical College of South Carolina, as recent even as 1908 visit his Alma mater, he would ask of himself what new and strange place is this? To those of us who love the old these changes at first seem a sacrilege, for there is a certain awe-inspiring sanctity and reverence in treading the very corridors and halls trod by Sims, Dickson, Geddings, Thomas, Porcher, and a host of others who have long since attained the Golden Fleece of their ambition and been gathered to their last reward; but these sentimentalities must be laid aside and the spirit of the times must creep in and take its place. The growth and expansion of the last decade has been unprecedented. To meet this the teaching staff and facilities have from time to time been increased, months added to the term, and years added to the course. However more than this was needed. The seating capacity of the building as it stood was entirely inadequate and to

meet this deficit the present changes were undertaken. The old Amphitheater has been replaced by a large well-lighted and ventilated Assembly Hall calculated to seat three hundred students.

The seats are arranged on a very gentle incline. The dead space between the old Amphitheater and the north wall of building has been taken into the Assembly Hall and here is a commodious platform for the lecturer to stand on. Over the Assembly Hall has been built two large lecture halls. One to be the Physiological Laboratory, where Dr. Pollitzer, who is now North perfecting himself in this line of work will conduct experiments on animals. This will prove a most important aid to the chair of Physiology. The Anatomy Lecture room has been enlarged and is now adjoining the Specimen room (formerly the Museum.) The dissecting room has been added to and a vat has been installed so that subjects may be on hand at all times. The passage of a law last year turning over pauper bodies to the Medical Colleges insures an abundant supply. The Executive Office in the Southeast corner of the first floor opens on the entrance hall. All of these improvements together with the new laboratory built last year completes a metamorphosis that has been going on some time and makes the Old College as modern an Institution as can be found.

This year outside lecturers have been arranged for, among them, Dr C. W. Stiles of the Bureau of Animal Industries, Washington, will deliver a course of lectures on Malaria and the Hook-worm disease. These will probably be delivered sometime in November. Dr. Babcock of Columbia, it is hoped and expected will give a series of lectures on Pellagra. Many of the old Alumni will doubtless arrange to be in Charleston at these times.

The very creditable paper on Caesarean Section in eclampsia, however impracticable its suggestions may seem to those of us remote from hospitals, appears elsewhere or will do so later. The paper was generally discussed and the concensus of opinion was that the time was not yet ripe for such drastic measures. As the writer says, "in choosing

between Caesarean Section and High Forceps we must not think solely of the question of maternal morality but also of invalid mothers and idiot children who are living monuments to a faulty judgment.

ORANGEBURG

D. D. Salley, M. D. Secreary.

Orangeburg County Society met in Orangeburg, Tuesday July 20th, nine members present.

Arr pleased to report three new members added to our roll and indications of renewed interest in the society, which I trust will be fully realized.

We had several interesting clinical cases reported, among them, one by Dr. T. H. Dreher, of what seemed to be a case of acute indigestion, complicated with cerebral hemorrhage and probably uræmia. Clinical picture as follows:—A healthy man of about fifty years, a few hours after eating heartily of fish etc., at a fish fry, was taken with convulsions, mind being perfectly clear between seizures. Belly tight, and bowels constipated, it being necessary to give croton oil, other heroic doses of calomel etc. failing to move bowels.

After bowels moved, convulsions ceased, but there was both motor and sensory paralysis of one side, with uræmic symptoms. Pulse and temperature elevated, but pulse gradually slowed, death supervening on sixth day.

About six weeks before this attack, patient had a similar one after eating heartily at a fish fry, but recovered in a few days, being perfectly well until his last fatal attack.

Treatment and differential diagnosis of cerebral hemorrhage and cerebral embolism were then taken up and fully discussed.

The Secretary read a paper, entitled, "The Secretary and the Society," which will be published in the Secretaries' Department of the Journal, at a later date.

Society then adjourned to meet at Elloree, in August.

SPARTANBURG

L. Rosa H. Gantt, Secretary.

The Spartanburg County Medical Society held its regular monthly meeting July 30th; with the attendance still below the average, though better than at the June meeting, there were also several visitors.

No papers had been prepared for this meeting, but a patient with pellagra was exhibited and a general discussion of the disease entered upon, the physician who

presented this case stating that he had not been able to find anything which would relieve the uncomfortable giddiness which was a well marked symptom in this particular case, and asked for suggestions.

A count was taken of the number of cases of pellagra at present under treatment by the physicians present at the meeting and the fifteen members present reported sixteen cases, one physician having eight of these.

DEPARTMENT

Of the Society of Medical Secretaries, South Carolina
Medical Association.

DR. ALLEN J. JERVEY, Charleston, Chairman.

DR. MARY R. BAKER, Columbia, Vice-Chairman.

DR. L. ROSA H. GANTT, Spartanburg, Secretary and Treasurer.

*TO THE SECRETARIES NOT YET
MEMBERS.*

*L. Rosa H. Gantt, M.D., Secretary
South Carolina Society of Medical Secretaries, Spartanburg, S. C.*

Where are the seventeen Secretaries and three Councillors who have not yet become members of the Society of Secretaries and sent in their assessment? The secretary doesn't seem to be able to find them as letters do not bring them to light. It is hoped, however, that the June issue of the Journal has made them realize that this society—though only a subordinate body of the State Association—is certainly not of minor importance for it is the County Society that makes the State Association and, in most instances, it is the active, interested secretary that makes the County Society.

There seems to be an idea among some of the secretaries who were not at the organization meeting that they must first bring the matter up and get the consent of their respective County Societies before they can join; this idea is decidedly

incorrect for those secretaries who organized had no instructions, they went ahead, joined, and paid the assessment, hoping that their County Societies would refund the amount, and, I believe, in most instances they did.

The secretary has received programs from but six secretaries. The program exchange among the secretaries is not as active as it might be though the value of this exchange has already evidenced itself in the very attractive folder programs gotten out by the secretaries of Oconee, Abbeville and Pickens Counties, which is the direct result of this exchange.

Few, if any of us, have an over-abundant amount of originality and we must copy from others, so if you see a good program copy it, if you have a good one send it on so that the other fellow may copy it. Let's do away with the postal card form of programs. We don't use cards for our business correspondence, let's not use them for the County Medical Society's.

Won't the secretaries of Marion and Cherokee counties please send their names to the editor so that they may be

put in the table of county officers in the Journal? There is a name in the secretary's column for Cherokee, but letters sent to him have been returned by the postmaster, and as there is no name in the president's column for the county, I have been unable to get in correspondence with this Society.

This table in the Journal is the only guide that we have and it is very important that it be a complete and correct one. If every secretary will look over the table and make the corrections necessary we can have such a one in the next issue.

THE COUNTY SECRETARY'S RESPONSIBILITY.

By Theo. A. Quattlebaum, M. D., Secretary Aiken County Society.

To The Secretaries and Members of the County Societies:

Boasting is immodest and self praise is half scandal. The writer does not propose to speak of himself but of the class of which he is one. If there be any reflected encomium by reason of his connection with the thing lauded, his readers will not begrudge him that. The writer believes that any man or woman who has been made secretary of his or her society solely by reason of fitness and fidelity has been honored. His position is one of responsibility and trust.

To a large extent the success or failure of the society has been committed to his keeping. I do not mean that he is the whole shooting match. He should never imagine that he is IT. But he should feel that he is a large factor in making the society a strong and united force. Common honesty should prevent a man from accepting the honor of a position without rendering the service that attaches thereto. No one should accept an office who does not propose to fill that office to the best of his ability. A good secretary is more to be desired than a good president. A poor president is a misfortune, a bad secretary is a calamity.

A secretary should be elected because he can do good work and not that he may be given an office. The position of secretary is one of considerable work and

of no play. He is expected to be a man of all work from that of janitor and fire builder, up. He is required to do scads of writing which this scribe hates worse than the Devil is alleged to hate holy-water. Now while a proficient secretary is a wheel-horse in his society the best one of the world cannot make the society a success without the co-operation of the other members. He has no power to compel members to attend meetings or to do anything they are unwilling to do.

What I want to say is that it is imperative that the individual members be willing to do their full duty as component parts of the society. They should be regular and punctual in attendance upon meetings, cheerfully doing the things required of them. They should feel that they ought to do their part in making the meetings attractive and profitable. A prompt response to calls for service would make so much smoother sailing for all concerned. If every man would only do his duty, what a difference there would be.

In conclusion, fellow secretaries we are bon tons of the profession so let us conduct ourselves accordingly. My fellow members of the societies, you are our peers, therefore you cannot be less faithful than we.

Members of the Society of Secretaries.

- I. R. Wagner, Chesterfield County.
- J. I. Barron, York County.
- E. T. Kelly, Williamsburg County.
- A. J. Jersey, Charleston County.
- D. D. Salley, Orangeburg County.
- C. C. Gambrill, Abbeville County.
- W. J. Burdell, Kershaw County.
- T. A. Quattlebaum, Aiken County.
- Mary R. Baker, Richland County.
- W. B. Cox, Chester County.
- C. R. May, Marlboro County.
- E. H. Hines, Oconee County.
- E. W. Simons, Dorchester County.
- L. Rosa H. Gantt, Spartanburg Co.
- T. G. Kershaw, Colleton County.
- C. B. Geiger, Clarendon County.
- J. La Bruce Ward, Georgetown Co.
- E. R. Wilson, Sumter County.
- Jesse H. Teague, Laurens County.
- J. R. Young, Anderson County.
- J. C. Lawson, Darlington County.

J. D. Waters, Saluda County.
 J. J. Wingard, Lexington County.
 E. W. Carpenter, Secretary 4th District
 F. M. Dwight, Councillor—7th District.

O. B. Mayer, Councillor—3rd District.
 J. F. Williams, Councillor—4th District.
 W. P. Timmerman, Councillor—2nd District.

PERSONALS.

Dr. A. B. Knowlton, Surgeon to Knowlton Hospital, Columbia, is at Mayo's Clinic for three weeks.

Dr. J. H. Taylor, of Columbia is spending the summer in Europe.

Dr. B. B. Steedley, of Gaffney, S. C. has moved to Spartanburg, and will open an Infirmary for Gynaecological cases.

Dr. Robert L. Edwards, of Darlington, S. C. has moved to Richmond, Va., and will open an Infirmary for Eye, Ear, Nose, and Throat cases, limiting his practice to this specialty.

Dr. W. W. Fennell, of Rock Hill, S. C. has opened the new Fennell Infirmary, much larger than the old one.

Dr. T. P. Whaley, of Charleston, S. C. who has been ill is convalescent and is now in the North.

Dr. Geo. Heintish, who was painfully injured in a runaway automobile, is convalescent.

The child of Dr. Walter Cheyne, of Sumter, S. C. who has been seriously ill, is improving.

HYMEN IN THE RANKS.

Dr. W. W. Boyd of Laurens and Miss Carrie Felder of Bamberg were married at the home of the bride's parents on the 16th. Mrs. Boyd is a recent graduate nurse of Roper Hospital school Charleston, so is claimed to some extent by the profession. She is a charming young lady, the reports say, and the doctors of the state know how worthy and attractive a young man Dr. Boyd is. He is a member of the Laurens county association.

OBITUARIES.

DR. J. M. CARLTON.

Dr. J. M. Carlton, of Mt. Carmel died at his home in that town on the 15th, having been taken suddenly ill that morning. Doctors Charles Carlton and Neuffer were both summoned and did all that could be done but in vain. No particulars of his malady have been given. He was 45 years old and one of the most prominent and highly respected physicians in Abbeville County.

DR. L. C. STEVENS, A VETERAN.

Dr. L. C. Stevens, for 51 years a practitioner in this state, and a war surgeon of Hart's Battery died in Greenville on the 12th after a trip to Ceasars Head the day before, in which he probably over exerted himself. He had once been President of the State Medical Associa-

tion. He had moved to Greenville nine years ago from Barnwell.

DR. RALPH B. HANAHAN.

Dr. Ralph B. Hanahan, a beloved physician of Winnsboro died on the night of July 30. He was buried from the Episcopal Chapel with Masonic honors and a large concourse of people in attendance to testify the regard in which he was held in the community where he had lived so great a part of his life. He was the son of a well known physician of the old times of Edisto Island and was educated at the famous Old Mt. Zion Academy. For his heroic services after the Charleston earthquake he was presented with a medal by the city. He leaves a wife, daughter of Dr. Bratton of Yorkville, and four children.

JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION.

FLORENCE, S. C.

PUBLICATION COMMITTEE

Dr. O. B. Mayer, Newberry, S. C., Chairman.

Dr. F. M. Dwight, Wedgefield, S. C.

Dr. J. T. Taylor, Adams Run, S. C.

Dr. F. H. McLeod, Florence, S. C. Editor.

BIERS HYPERAEMIC TREATMENT OF INFLAMMATION.

Prof. Bier has maintained "that an inflammation—from the physiologic point of view—does not, in itself, represent a diseased condition, but is a phenomenon indicating the body's attempt to resist a deleterious invasion" and "to increase this beneficent inflammatory hyperæmia resulting from the fight of the living body against invasion, is the aim of Bier's Hyperaemic Treatment."

The idea was given Bier that those cases of heart disease in which the pulmonary circulation was increased, never had a tubercular process in the lungs; while those cases with poor lung circulation were predisposed to tuberculosis.

He conceived the idea that nature did her healing by throwing an increased amount of blood to an involved area.

He teaches that we should "artificially increase redness, swelling and heat"—the conditions we have heretofore regarded as necessary to treat—claiming them as nature's method of cure.

Many theories have been advanced as to how the increased amount of blood benefits Bier thinks it an oversaturation of the tissues with serum.

Dr. Willy Meyer in "Bier's Hyperaemic Treatment," enumerates the advantages of the method as follows:

- i. Suppression of inflammation.

2. Avoidance of suppuration in many cases.

3. The possibility of using small, instead of large, incision, in cases where suppuration has already set in.

4. Hastening the course of the pathologic process.

5. Favors absorption.

6. Diminution of pain.

7. Wide field of usefulness—acute or chronic inflammatory cases, etc.

There are various methods of inducing the desired hyperaemia, but we shall only refer to one—the constricting rubber band. This method is applicable to the diseases of the head, scrotum and extremities.

A soft rubber band, two or three inches wide, is wound around the limb, above the inflammation, six or eight times, distributing the pressure of the bandage by overlapping its edges, applied tight enough to slightly constrict the return flow of blood—the veins, but not the arteries—and not tight enough to cause pain.

Very soon the veins, below the bandage, will become distended, and the skin take on gradually a bright red color, or bluish red. If the limb is not warm, a bath of hot water will facilitate the rapid induction of the hyperaemia.

One is apt to apply the bandage too tight, but the patient is your guide—he

knows if it is too tight and will complain.

The length of time the bandage should be left on varies from a few hours, several times daily, to as many as twenty or more hours daily. When the parts become too cyanotic, the bandage must be loosened.

This form of treatment is applicable to wounds, abscesses, tubercular joints, gonorrhæal arthritis, orchitis, felon etc.

Experiments have been made as to the bactericidal power of hyperaemia.

Dr. Everett O. Jones, in Northwest Medicine, states that Notzel inoculated 67 rabbits with fatal doses of anthrax bacilli, and subjected the inoculated portions of the body to hyperaemia. Fifty-one showed no effect of the inoculation.

To prove that this was due solely to hyperaemia, the same animals were inoculated a few weeks later, without hyperaemia, and all succumbed. The same experiments with staphylococci and streptococci gave similar results.

The results of this method of treatment prove conclusively its value and it is hoped that its use will be more generally employed.

LIFE INSURANCE AND PREVENTIVE MEDICINE.

Three events of signal importance to the medical profession have been recently chronicled in the daily press. At the Convention of the Presidents of Life Insurance Companies, held a few months ago, it was generally agreed that the time had come when these companies could no longer regard with indifference the problems connected with public health and the campaign, hitherto fought solely by the medical profession, for diminishing disease and increasing longevity. As a proposition of sound economic importance, this propaganda appealed with incisive logic to the business in-

stincts of the heads of financial institutions. The postponement of the age of death would increase the income of these companies in two ways: first, by diminishing the number of death claims paid, and second, through the general reduction in the rate of premiums, by increasing the number of those individuals who were willing or able to purchase life insurance. The benefits to the company and to the insured would obviously be mutual.

This discussion has already borne fruit. One of the largest companies has proposed to build a sanitorium for the treatment of tuberculosis among its extensive force of office and field employees, and among those of its policy-holders who care to avail themselves of this opportunity of getting cured or of having the disease arrested. Another powerful company has inaugurated a campaign of education among its policy-holders, through the dissemination of literature dealing with personal hygiene and preventive medicine. Moreover it proposes, at no cost to the applicant to furnish the policy-holder, whenever he may desire it, a complete physical examination, and whatever advice he may need to enable him to prevent or overcome any threatening or existing defect or disease. The former plan, involving the expenditure of funds for building and equipping sanatoria, has not been sanctioned by the Superintendent of Insurance of New York State, who has ruled that the present insurance laws do not permit such an investment of the funds of insurance companies. New legislation will doubtless, however, remove the technical restriction.

To the system of the education of policy-holders in the ways of right living there can be no legal objection. In view of the large number of individuals whose lives are insured, the inauguration of such a campaign of education by all companies would not fail to be of decided influence in improving the conditions of health not only among the large force of policy-holders, but also among the larger army of those who are closely related to them. The detection of incipient disease would necessarily suggest the proper hygienic and remedial meas-

ures. This effort toward diminishing the prevalence of disease and reducing mortality finds its perfect analogy in the measures taken by fire insurance companies in safeguarding property from fire, by means of a rigid inspection of buildings, and by the framing of rules regulating the proper form of fireproof construction, the storage of explosives, etc.

The influence of life insurance companies in uplifting the general health and mode of living has existed as a silent force from the very beginning of the inauguration of this institution. Countless have been those individuals who first learned of some existing defect, disease, or pathological tendency through the examination made when they applied for life insurance. How incalculable therefore must have been the efforts made to eradicate these defects and check these tendencies, which the applicants were impelled to make in order to qualify for a subsequent examination. The arresting of injurious habits of excessive indulgence in alcohol or tobacco, the avoidance of overwork, particularly the relaxing of the severe tension of

Hydrogen peroxide should not be injected into deep infections in loose areolar tissue, as the expanding gas pushes the infection into the uninfected areas. Its most useful field is in open places.—W.—American Journal of Surgery.

In immobilizing the knee-joint the patient is more comfortable and better relaxation is secured if a very slight degree of flexion is maintained.—American Journal of Surgery.

To differentiate a tender spot from a simulated pain, it will be observed that pressure on the former causes a decided increase of pulse rate, while in simulation it does not.—W.—American Journal of Surgery.

Cotton will hold more securely on an applicator if the tip of the latter is dipped in colodion before winding it. The employment of this advice will afford a sense of security when applications are made in urethra, bladder or deep sinuses.—American Journal of Surgery.

business activities during and shortly after middle life, are familiar examples of some of the wholesome influences that life insurance examinations have created.

The era of preventive medicine has barely dawned. Statesmen are beginning to open their eyes to the vast importance of conserving the health of the nation in order to insure its civic integrity and permanence. The industrial world is not only no longer unwillingly yielding to wise laws designed to safeguard the health of the laboring classes, but is, actually initiating, of its own volition, measures for improving the physical welfare, and therefore indirectly the industrial efficiency of the workers. The educational authorities are beginning to focus their attention upon the bodily health of the child, for without this, all efforts at mental training are worse than useless. The insurance interests, which have become an integral and indispensable part in the modern machinery of society, are merely falling in line with this universal tendency.—Editorial from the Medical Record.

REPRINTS.

To the Authors of Articles in "THE JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION" and Others Interested.

Reprints of articles in this Journal will be furnished at the following prices, provided the order is given before the type is remelted:

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SOUTH CAROLINA MEDICAL ASSOCIATION

Next Annual Meeting at Laurens, S. C., April 20, 1910.
House of Delegates Convenes April 19, at 2 p. m.

District No. 1: Charleston, Berkley, Dorchester, Colleton, and Beaufort. Councilor, Dr. J. T. Taylor, Adams Run, 1911.

District No. 2: Orangeburg, Bamberg, Lexington and Calhoun. Councilor, Dr. W. P. Timmerman, 1910.

District No. 3:—Saluda, Newberry, Greenwood, Laurens and Abbeville. Councilor, Dr. O. B. Mayer, Newberry (Chairman of Board), 1911.

District No. 4: Anderson, Oconee, Pickens, Greenville, Spartanburg, and Union. Councilor, Dr. J. F. Williams, Roebuck, 1912.

District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor, Dr. W. B. Cox, Chester, 1910.

District No. 6: Chesterfield, Darlington, Florence, Marlboro, Marion, and Horry. Councilor, Dr. William Egleston, Harstville, 1911.

District No. 7: Richland, Sumter, Clarendon, Willatmsburg, Georgetown and Lee. Councilor, Dr. F. M. Dwight, Wedgefield, 1910.

District No. 8: Barnwell, Aiken, Edgefield, and Hampton. Councilor, Dr. T. G. Croft, Aiken, 1912.

Officers

President, John L. Dawson, M. D., Charles-ton.	2nd Vice-Pres., C. M. Rees, M. D., Charles-ton.
Vice-Pres. F. H. McLeod, M. D., Flor-ence.	3rd Vice-Pres., A. H. Hayden, Summerville.
	Treasurer, C. P. Aimar, M. D., Charleston.
	Secretary, Walter Cheyne, M. D. Sumter.

TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay:

County Society	President	Secretary	Time of Meeting
Abbeville	J. B. Britt	C. C. Gambrell, Abbeville	
Anderson	J. L. Gray	J. R. Young, Anderson	Semi-Mo., 1st and 3rd Monday
iken	C. A. Teague	T. A. Quattlebaum, Gr't'ville	Monthly, 1st Monday
Bamberg		J. J. Cleckley, Bamberg	
Barnwell	A. B. Patterson	L. F. Bonner, Blackville	
Beaufort	H. M. Stuart	M. B. Cope, Port Royal	
Charleston	John L. Dawson	A. J. Jersey, Charleston	Semi-Mo 1st and 15th
Cherokee		B. L. Anken, Gaffney	
Chester	J. G. Johnston	W. B. Cox, Chester	Monthly, 1st Monday
Clarendon	W. M. Brockinton	C. B. Geiger, Manning	Quarterly
Chesterfield	T. E. Lucas	J. W. McCanless, Chesterfield	
Colleton	J. T. Taylor	T. G. Kershaw, Walterboro	Monthly
Darlington	J. F. Watson	J. C. Lawson, Darlington	
Dorchester	J. B. Johnston	E. W. Simons, Summerville	Monthly, 1st Monday
Edgefield		J. G. Edwards, Edgefield	
Fairfield	R. B. Hanahan	.Samuel L'ndsay, Winnsboro	Quarterly
Florence	F. H. McLeod	J. H. Peele, Cartersville	
Georgetown	Olin Sawyer	W. M. Gaillard, Georgetown	Monthly, 1st Friday
Greenville	L. L. Richardson	W. M. Burnett, Greenville	Monthly, 1st Monday
Greenwood	R. B. Epting	J. B. Hughey, Greenwood	Monthly, 1st
Hampton	T. B. Whatley	C. A. Rush, Hampton	Monthly, 2nd Wednesday
Horry	A. D. Lewis	J. S. Dusenbury, Conway	Monthly, 2nd Monday
Kershaw	S. C. Zemp	W. J. Burdell, Lugoff	
Laurens	W. D. Ferguson	J. H. Teague, Laurens	Monthly, 4th Monday
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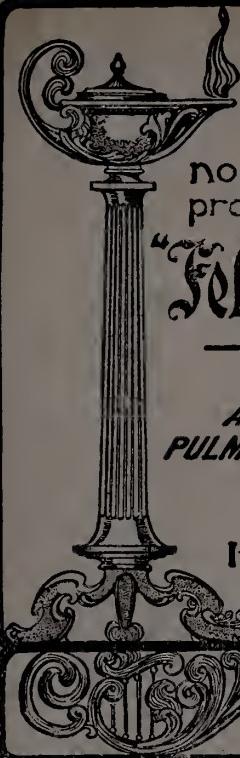


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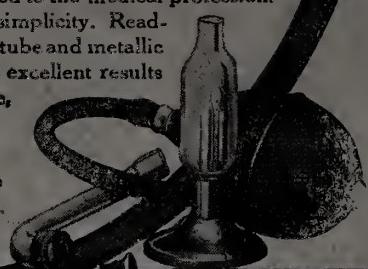
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The Journal OF THE South Carolina Medical Association

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ORIGINAL ARTICLES.

THE INFLUENCE OF A MODEL PHYSICIAN IN THE PREVENTION AND CURE OF TUBERCULOSIS.

BY W. B. YOUNG, M. D., Rock Hill, S. C.

My subject is one in which every wide-awake physician feels the deepest interest. Knowing that you are alive to its importance it is not a little surprising to me to find that I am the only member of this Association to discuss Tuberculosis from a medical point of view. To my mind no subject demands more conscientious and constant study than this. It is an old disease which is ever new because it is so often misunderstood and neglected. I love to read and talk about it. It is not my purpose to bring to you anything new, nor shall my

ramblings claim any other aim than to lay emphasis on a few points which I hope may be of interest to every one of us.

I believe the lack of interest manifested in Tuberculosis is due to the fact that we have not studied it as much as we ought. Some of us have reached no further in our progress than the milestone at which the bacillus Tuberculosis was discovered, and still believe that it is an inherited and incurable disease. Sometimes I think that if less time was spent in analyzing the contents of the stomach, or looking for the Boas bacillus, or hunting a kidney to anchor or decapsulate; and if we spent less time

Read before the S. C. Medical Association, Summerville, S. C., April 1909.

trying to convince our patients that they would be better off with their appendices or ovaries in formaldehyde than in their natural cavities, and if we would give more time to teaching how to prevent and cure Tuberculosis, our labors would be far more beneficial. In other words, I am afraid we are spending nearly all our time with diseases which kill their thousands while we leave practically unnoticed Tuberculosis which destroys its tens of thousands.

Tuberculosis is a treacherous foe coming as the thief in the night and grimly clutching the lives from thousands of useful people. The belief of the public that the diagnosis of Tuberculosis is a death sentence is due largely to the fact that the physician is lax in his examination and allows the trouble practically to asphyxiate the patient before he diagnosis is made. If we were always on our guard to detect this disease in its incipiency, and to begin treatment in time, it would be but a short time until it would not be considered so fatal. The doctor should be the physical director constantly giving instructions to the public as to how to develop themselves so that they may shun the clutches of this destroyer of life. If one should unfortunately fall a prey to the disease, the instructor should at once recognize the enemy, and begin to make war on it. He should persuade the patient that he is the better soldier and that if he will only have courage it will take but a short time to deal a death blow to the disease.

If we will take time to study medical history we will find that the men of note had big hearts, cheerful and sympathetic and always had time to be sociable. I am afraid that specialization and haste to reach the ball park before the beginning of the game is rapidly eliminating this most valuable part of our therapy.

The shrewd story of the detail man with his unlimited number of proprietary cure-all's has practically antiquated another valuable part of our therapy in Tuberculosis, namely, "Nature in disease."

I can not condemn too severely the use of medicines in the treatment of Tuberculosis. They have their disadvantages. First, they cost money that most Tuberculosis patients need. Second, they

do injury to the digestive tract. Third, they cause disappointment which it takes lots of persuasive power to overcome.

Dr. Osler says that "medicine is no longer a science but an art." So let us put more of ourselves in the treatment of tuberculosis and lay aside all the science possible. Service is therapy. If we cannot cure we can improve. If we can neither cure nor improve we can cheer, and that will improve. Encouragement is sometimes our best remedy. If the physician conducts himself as he should and is beyond reproach, his patients believe what he says, and when they are told there is hope, the encouraging announcement produces a stimulant to both their nervous and circulatory systems, and this aids in their recovery. Never allow a patient to think you are hiding anything from him, or to doubt your word. If you lose his confidence you lose your best remedy. You will strengthen your patient's confidence by not telling him that he has consumption, which diagnosis he naturally thinks is a death sentence. When he asks tell him that he has Tuberculosis and can be cured.

In treating the Tuberculous person we are not dealing with gold, but with a fellow being. He is not malleable, nor ductile, he is more like crystal, therefore very frangible and must be handled with care and managed so that he will show up brightest.

Psychotherapy has given us another valuable remedy in treating Tuberculosis. In the discovery of this treatment the medical profession has begun to realize that man has a soul as well as a body. It takes soul and body to make the unit, and unless we treat the unit the results of our efforts are unsatisfactory. No matter how skilled we are, if our aim is directed to treating the sickness while we pay no attention to the sick our efforts will be fruitless. The family physician of our fore-fathers did more by his kind words and sympathetic touch than he did by his medicine.

The public is rapidly realizing that Tuberculosis is a transmissible disease, and that it can be prevented and cured. They are anxious to get information on the subject, and it is the doctor's duty to

commence the educational campaign. This may be done by a concise and interesting contribution in his local newspaper. These articles should appear in a conspicuous part of the paper and should be commented on editorially. After enough interest has been created to get people to attend a lecture the services of some good talker who has influence and who knows how the fight should be carried on should be secured for that purpose. It is well to have the first lecture in the church. I find that people will visit churches when they could not be gotten to visit any other auditorium. After the lecture, or at some subsequent date, an anti-tubercular league should be organized for the purpose of carrying on the crusade against the disease. The active members of churches, or charity organizations, or civic leagues, as well as teachers and ministers, should be induced to join this organization. After organization the doctors should make talks to the members, telling them how the crusade should be carried on and should instruct them as to what periodicals are most active in the fight and how they can provide themselves with these journals. After the organization, and when funds are available, slides for illustrative lectures should be purchased and used for public education. It is now near summer time and these lectures can be held out of doors. Every town has a moving picture show from which we can get a stereoscope to show these pictures. The wiring is a simple matter and can be run to the machine with all ease. Any doctor who has kept up with the crusade, and I am sure most of us have been doing so can explain the pictures and add instructions, and jokes between pictures to please his audience. Announcement through newspapers and distribution of circulars on the day of the lecture will bring out a large attendance. It is well, if there is a band in the town, to have a concert before beginning the lecture. This will bring out a good many. If the attendance is still unsatisfactory a few bombs may be fired and a few skyrockets sent up. This will bring a crowd in short order. We must do anything to get the people out, and especially to get the poor to attend these illustrative lec-

tures.

In our educational campaign we want to pay special attention to the school children and teachers. Proper training of school children causes an indelible impression and it becomes natural for them to observe the necessary precautions. I am not in favor of stringent laws in the beginning of the crusade; but I do believe that we should have laws requiring teachers to pass satisfactory examinations on physiology and hygiene before the State Board of Health from books approved by this Board before they are granted certificates to teach. We should have laws to require the teaching of these branches in our school and the hygiene should contain a chapter on Tuberculosis, which chapter should be approved by the State Board of Health. Too much attention can not be paid to the training of children, for they will have the work to do. The trustees of the Great Cathedral of New York City do not expect to live long enough to worship in that structure; yet they have just as much interest in it as if they did so—so it should be with the medical profession. We will never live to see Tuberculosis entirely wiped out; but it is our duty to lay the foundation and build as much of the super-structure as possible. Teachers should read to their pupils articles from different periodicals relating to Tuberculosis and have them write compositions on it from memory. Pictures showing what ill-ventilation, poor food, overwork, swapping apple cores, etc., should be hung about the building, placards, such as, "do not spit on the floor, for spitting spreads disease," "consumption can be prevented and cured," should be placed in conspicuous places. I shall not go into minute points as it is only my intention to outline methods of the crusade.

We should get all of our ministers interested in the work. They should study the subject and be able to give talks on prevention. They should explain to their friends the means of conveying infection; how to prevent its spread, and also cheer the sick. They should preach Tuberculosis from the pulpits. They can do this so as to impress the necessity of these precautions, and at the same

time preach the gospel. To illustrate, we have a minister who is very fond of comparing Tuberculosis to sin. He begins his sermon by saying "the bacillus tuberculosis is invisible to the naked eye, the most powerful lenses are used to detect its presence, so is sin. In the beginning we can not see it; it takes the trained eye to find it out, yet it is there and develops rapidly if not destroyed." He then shows how easily both sin and the bacillus can implant themselves in the human body without the notice of patient or sinner, and that after implantation they multiply rapidly. He explains the difficulty of recognition in their incipiency. After the sin and disease are clearly seen he shows that it is hard to get the sinner and disease to believe what their moral and physical doctor tells them, and neither is willing to believe he has the malady. He describes how lingering, distressing and hopeless both sinner and patient are when they fail to believe their advisors. He shows that they thus become their own destroyers, while on the other hand he shows that if these patients will have confidence in their leaders; follow their directions without listening to anyone else, there is hope and every possibility of their recovery. He tells how prone both sin and consumption are to attack the man who goes about in bad places at night as well as those who visit dark and secret places during the day. The bacillus always loves the places of the sinful. He ends by taking up the cure, comparing the study of the Bible to nutritious food, his services to his God to sunshine and prayer to rest. I can not insist too strongly on the co-operation of the ministry in this crusade. Pardon me for saying it, but I believe a well trained and active minister would be of better service to the cause than an active doctor. I say this because the majority of people believe what a minister says and are willing to follow his instructions, while they may question the physician's word. We are largely responsible for this state of affairs by not being positive and leading positive Christian lives. Take for instance the results the Emmanuel church is getting with their tubercular classes. No sanitorium equals it; and I will ven-

ture to say their classes are not near so select as those of a Sanitorium. Patients believe those people and are willing to trust them. There is where the secret lies.

Our editors should aid us in this work. More people can be reached through the newspapers than by any other means. They should copy and place in a conspicuous place any articles which would enlighten the people. This month's "Journal of Out Door Life" contains an article on "Maxims for Tuberculosis Patients" which should be copied by every paper in this State.

The Town Council and Civic Societies should co-operate with these anti-tubercular leagues. They can aid materially in renovating and condemning unhygienic tenements, which so often do not come up to the ordinary laws of decency. If the landlord was talked to and shown what a menace his place is to humanity, he in all probability, would make some changes. To show how detrimental such places are to a community I give the following example: A consumptive moves into the dark, damp, ill-ventilated house where he dies, after spreading infections over the whole place. Another family soon moves in. There is but a short time until half of the family are infected. These infected people hire to Mrs. Brown, one to cook, another to wash and another to nurse. Three surer positions could not be found to spread Tuberculosis. After a time Mrs. Brown's family becomes infected, and so the disease spreads. When a landlord refuses to renovate his place so that it is inhabitable the matter should be reported to the dispensary, which we will discuss later. From that point information should be sent out to every family in the town not to employ any one who occupies that house. This step would soon bring the owner to see his mistake.

The mill districts should be visited by committees on hygiene appointed by these Societies and if it is found that the houses and sanitation at the mill is not what they should be the management should be prevailed upon to make the necessary improvements, for mill products are very dangerous when handled by infected persons. We find an un-

usually large number of tubercular patients about mills. These employees with tuberculosis cough and spread bacteria on the cotton in the card room and often spit on it. This cotton is then handled in the spinning room where it receives more bacteria and infects some one who afterwards aids in infecting other thread. This thread is then handled in the weave room where it either infects or receives more infection. The cloth is afterwards handled in dark and ill ventilated stores where, if bacteria are shaken off they, in all probability, infect some one. This cloth is purchased carried to a home, cut on the bed of children, in all probability, and afterwards made into garments before the fire in same room where the germs are spread broad cast. The children, after a time, contract the disease, and it puzzles the parents to know from whence the infection came. Since these people are such a fruitful source of danger they should be given all the education possible on the prevention of tuberculosis. Most every mill district has a small auditorium in which they worship. Lectures on prevention and cure should be given at these places when the largest crowds can be gathered. Placards and banners should be placed about in the mills, houses and any place where they will be noticed. Neat and attractive cards should be placed in each of their packages containing the following abstracts which I copy from this month's "Journal of outdoor life."

"It is never too late for the hopeful patient to begin the fight against tuberculosis."

"A contented, happy, courageous mind is worth a host of ordinary tonics."

"Willingness on the part of the patient to follow the advice and do the things laid down by his physician is most important. Equally important must be the unwillingness by the patient to accept advice of others than the physician's."

Tuberculosis follows a path of many windings and obstacles. One guide who knows the road and way out is worth a host of chance and guess pilots."

"Hold fast therefore to the true physician in whose care you have given your

self. Let the physician be your guide. He will map out your mode of life, will try to keep you from falling into pitfalls of the hygienic dietetic life and will advise those lives of medication which, in his judgment seem best for your particular case." I stress these points for this class is so prone to take so called guarantees.

The following paragraphs written by Dr. Herman Biggs and spread broadcast in New York City relative to when one should consult his physician should also be printed and distributed in the above manner:

A cough lasting a month except whooping-cough.

Poor appetite (especially in the morning) and indigestion, loss of weight and strength and pallor (generally run down.)

Hoarseness lasting several weeks..

Spitting especially in the morning..

Night sweats.

Spitting blood.

Fever in the afternoon shown by flushed face and tired feeling.

Before leaving the mills I wish to commend the management of a mill in Rock Hill. In passing the place you would judge from its beautiful lawns and flowers and pretty streets that it was a modern park. Its houses are so hygienic that they would be a credit to any tubercular sanitorium as cottages for their patients. Thanks to Mr. Hamilton Carhart for such an enterprise. I wish others had such a heart as he.

A dispensary should be established at the league headquarters with a secretary who should be posted so as to give any information that will be helpful to the poor and careless. A record of every case of tuberculosis should be kept at these quarters and its progress and location watched. Doctors of the town should take time about and spend at least six hours per week making free examinations and giving instructions on prevention and cure. This would encourage people to have their trouble looked into in its incipiency. As it now stands they stay away from a doctor for two reasons. First, it costs money to see one. Their money is scarce. Second, instead of receiving a careful and

conscientious examination sometimes, they are asked a few questions, their tongue is looked at, the ear of the physician is placed at one or two places about the chest without being divested of any clothing whatever, they are then handed a prescription for hydriodic acid or cod liver oil to upset their stomachs and passed on to sow broadcast the seeds of the disease. Gentlemen, the dispensary will soon rid us of this criminality.

It has been my purpose to outline a general educational campaign. I think it is a sad mistake for anti-tubercular societies through their committees to bombard the legislature with demands for stringent laws at the outset. It should be our purpose first to educate the people, and they will send men as law makers who will give us the proper laws. I am sorry to see some of the States who think they are very active in this, right spending their entire time trying to have strict laws passed. If men are to observe laws they must first know what they are for.

The live physician finds a case of incipient Tuberculosis, he tells his patient he must quit work and take the cure at home or go off and take Sanitarium treatment. If the patient can afford it all is well, but if he is poor the doctor had just as well say "have WallStreet," or "take a trip to the moon." One is just as practicable as the other. He has no great amount of influence. He has possibly a house full of children dependent upon his labors. He has no money to provide outdoor sleeping quarters with, nor his family any conception of what constitutes a nutritious diet. Here is where the volunteer workers can do so much. The doctor can instruct how to live, and he can encourage; but this is not enough for the poor. They must be shown that people realize that they are human and that they care for them, they must be made to realize that they are dangerous to others where certain laws of decency are ignored, and yet that there is hope when treatment is begun in time. Induce them to believe that a contented, happy, courageous life is worth a host of ordinary tonics. It is wise for a anti-tubercular society to secure the services of an agreeable trained

nurse to lead these volunteer workers. The volunteer workers usually consist of ministers, teachers in Sunday schools members of Kings Daughters, and any others who are gifted in doing what was formerly known as charitable work, but what should now be called social work. These workers on their visiting days meet at the dispensary where they get data left by physicians and others. The physician finds a case suitable for these social workers, hands the following notes to the secretary of the society: "Mr. A. at Mill No. 4 has Tuberculosis; has a large family cannot afford to stop work; is dangerous to others in his present position, this position is detrimental to his health also; has no means to provide outdoor sleeping quarters or covering; should have another position with light work in a place where he can get fresh air." The management of the mill will help these people to secure better places every time when they see need of it. With this data the social workers go out to help these unfortunate beings. Another case may be found by the Doctor such as "a young girl has incipient Tuberculosis; too poor to take sanitarium treatment; several members of the family who earn enough to support her for rest cure at home." This case is also to be looked after.

The first report we hear when asking one to join these social workers is that they don't know anything about this trouble, or are afraid they will contract the disease. Dr. Chas. L. Minor has a little booklet for the benefit of his patients. This has been twice published in full in the "Journal of Out Door Life," describing in detail every point in the care of Tuberculosis patients. It is so complete that it explains every change of a patient for which the presence of the physician is necessary. It takes up food, clothing, rest, out-door sleeping and everything that concerns Tuberculosis. Every member of these societies should have and memorize this booklet.

The class method by which Emmanuel Church and Social Service Department of the Mass. General Hospital are doing so much good may be adopted by the physicians and their co-workers. This consists of selecting a limited number of

incipient cases for a class. Another may be formed of moderately advanced etc. The members of their respective classes are met at the home of the patient, or better on the lawn of the mill, or park about the city. They are taught to take their temperatures and pulse and how to keep their own records. They are told what a nutritious diet is and impressed with the importance of the proper preparation of their food. The necessity of the usual methods of treatment should be explained to them. Help them to see that they must follow instructions. Our social workers must be ever ready to do some deed of kindness, or speak a word of cheer. Simply the placing of a single flower in the room of one of these patients does so much good. The reading of Dr. Cabot's work among poor people stimulates me very much. I wish we had numbers of Richard C. Cabot. Borrowing from Dr. Lambreth we can readily show our patients that it does not require any great amount of riches to buy nutritious food, for the tubercular patients, nor does it require the most palatable foods to furnish the greatest amount of nutrition. The following comparisons are good:

A pound of corn starch at 8c gives the same nutritive value as a pound of Tapioca at 40c; one egg has the same nutritive value as 22 oysters; a pound of blue fish at 8c is equivalent to a pound of whiting at 35c; a pound of English cheese at 30c is no better than a pound of American cheese at 12c; 25c invested in peas gives 1,000 units of nutrition; in bread 750, in cheese 300, in beef 100 and in eggs 70. Skimmed milk and bread are the cheapest sources of nitrogenous food. A glass of milk and a slice of bread for 3c equals 30c invested in beef and eggs. Let the public know that cotton seed oil is equivalent to lard; that oleomargarine is as wholesome and as nutritious as butter. Sugar and cured vegetables are more useful for the laboring man than the excesses of beef and pork. Teach that poverty is not a valid excuse for under feeding for there is more extravagance committed with the dietary of the poor than with the well to do.

Let us not be afraid to go among the Tuberculosis. Dr. Cornet says the con-

sumption in himself is harmless and becomes harmful only through his bad habits. So let us look upon the use of the pocket sputum cup and other practical means for the prevention of the spread of the plague with approval and not with scorn and contempt. Let not these sensible precautions be the signal for avoidance of the tuberculous, let us not look upon them as having demons perched upon their persons to spring forth like a roaring lion, destroying all in its path.

The trained patients are harmless and can eat at the table with others and live with the family with all safety in a well ventilated room.

What are we going to do with this treacherous enemy? Are we going to sit with our hands folded and let it continue its ravages? I say nay, let us at once put on our armor for the purpose of attacking this foe with the determination never to retreat until Tuberculosis has become a historical trouble instead of an ever present menace.

DISCUSSION.

DR. CORNELL:

Mr. President, I wish to get up first so that Doctors Williams and Dawson who will probably speak on this paper, will answer me.

The chief point, it seems to me, in our fight on tuberculosis, would be if we could in any way influence the newspapers to have their glaring advertisements of "Cheyne's Expectorant," etc., eliminated, and until we can get them to discontinue that, we cannot possibly get them to help us out in our fight in this disease, because, if they put the statement in the first part of the paper, such as Dr. Young portrays, and then on the next page we see this "sure cure," it is worthless. I would like to find out whether or not the League has attempted as yet to get the newspapers on our side. I believe they are the most powerful single agencies in the country, if we could get them.

As to the influence of the physician in diagnosing the disease, I throw out the suggestion of the examination of the stools for the tubercle bacillus. I don't

know whether I am correct or not—that in the stool the germ will be found with as great ease and frequency as in the sputum. In children who swallow the sputum, we probably find it much more frequent in the stool. I remember seeing an article by Dr. Holt, of New York, where, in about thirty-three cases he had tried the method of segrating the child, then taking a swab-stick and mopping out the mucous that came into the throat, as the child gagged. He got positive results, out of twenty-two or twenty-seven cases examined. You know we don't attempt to get sputum from the child who is swallowing it, as we think it useless to try, but if we follow Dr. Holt's method, we will get the germ just as easily as he does.

The stain used is Pappenheim's and the method is similar to that ordinarily used, except that, instead of using Gabbett's for a few seconds to deodorize, we use Pappenheim's for three minutes.

DR. J. T. TAYLOR: The Doctor has made a startling statement, in which he says the children most frequently contract this disease in the carding, spinning and weaving rooms. I would like to ask Dr. Young for his authority, as I think, after the material goes through those processes, it goes through some heated bath, and then between very hot irons, that iron it out and heat it to such an extent that I should think these germs would be destroyed.

DR. E. A. HINES, OF SENECA:

I like the suggestion of the Doctor about bringing in the clergymen. Now I don't hesitate to tell a clergymen that he is responsible by his certificates for the use of patent medicine, and so every opportunity I get, I tell him about it, this "Expectorant" the Doctor spoke of, and so on. I believe if every one of us will pursue that course, the clergymen will co-operate with us in this work, in an effective manner, and I think his suggestion is a good one along that line.

Only recently, you all know that the Chicago Board of Health brought in the entire church to aid them in suppressing a typhoid epidemic. Why not, then, utilize the clergy along these lines? I be-

lieve that there is no doctor but has a strong influence with the clergy of his community, and if he will speak to him frankly and persistently along these lines, he can help in the fight.

DR. OUZTS, OF EDGEFIELD:

I was very much impressed with the point the gentlemen made in regard to the newspapers advertising patent medicines. Only a short time ago I published an article in one of our county newspapers along that line. The editor of that paper thanked me for it, said he appreciated it, and at no distant day he was going to eliminate all that class of advertising from his paper.

Now, the most valuable time is lost with us in curing incipient cases of consumption, because usually we have no opportunity of seeing those cases until after they have satisfied themselves that they cannot do any more with their own medication. They will probably take patent medicines for several months before they consult a physician, and valuable time, in which a physician might have accomplished something is lost. The newspapers are largely responsible for this state of affairs, but not altogether. The laws of the State are very much responsible for it. Physicians can do very little in making war upon patent medicines. In fact, most of the laity have very little confidence in what a physician says, when he advises them not to use patent medicine. They put the construction upon it that he is talking two for himself and one for them.

Now, it seems to me that if the South Carolina State Medical Association would recommend to the Legislature of South Carolina some appropriate bill along this line, some good might be accomplished. I think that all medical formulae ought to be placed upon every bottle, and also the commercial value of its contents, so as to let the people know just what they are buying—what per cent. of opium and of alcohol the bottle contains.

The greatest difficulty that we labor under is the valuable time lost, in which the physician could accomplish something; for it is only after the patient has satisfied himself with patent medi-

cines that he comes to the physician to die on his hands.

DR. BURDELL:

I think I know of an incident where doctors were somewhat to blame for this condition in tuberculosis. I have in mind a man who is cashier in a bank in this state. He developed some little trouble, and his physician told him he had tuberculosis, and to get out of the bank. He consulted a specialist on the throat—he had some little huskiness of voice—and the diagnosis of tuberculosis was confirmed. He came back home, but thought that the doctor was a little too extreme, so he consulted two or three physicians in that town, and they said, "Oh, you can attend to your work in that bank for three or four hours a day. That won't hurt you at all." He consulted a "specialist" on the throat. The latter specialist, I think, took three or four months' study and woke up a specialist, and he assured the cashier he had nothing the matter with his throat. The first specialist he consulted had some thirteen years of training. This man discarded the tuberculosis idea and he is going along in the bank now. I think the trouble is that too many doctors have not kept altogether up-to-date in this matter of tuberculosis.

DR. DAWSON, OF CHARLESTON:

I want, first of all, to thank Dr. Young for his most able paper. I am glad to see the work has taken root and is growing. Such papers as that will do good in the community.

As to Dr. Cornell, on the subject of newspapers; We have two newspapers in Charleston, morning and evening, and I have met with great courtesy at their hands. They tell me they will publish anything I write at any time, and publish editorials. The drawback to these articles is the local reporter, or the editor-in-chief, will edit that article himself, and usually put the physician's name in. With that there comes a hue and cry of being unethical, and immediately you get the rest of your medical brotherhood down on you.

My friends there, Doctors Wilson, Sosnowski, and some others, have recent-

ly been through that experience. Because my name, Dr. Wilson's and so on, were printed, immediately the Medical Society rose in arms. "I was advertising myself as a specialist on tuberculosis. It was not for the public, but it was for my good." And I had to withdraw those articles for peace's sake.

The trouble is that the medical men do not hold together. There is too much petty jealousy and smallness. If we do stand together, we win the fight, but we cannot do it divided.

Now as to early symptoms, the Doctor has given us an admirable synopsis. I would like to add to his list the abnormally large pupil in the young, anemic person, who is losing flesh, appetite and energy, who is apparently good-for-nothing, without any assignable cause; the pupil larger than normal, probably a little more sensitive than normal but still slightly dilated. That is an extremely common symptom of incipient tuberculosis. I give it to you for what it is worth, but some of you might look into that matter, and when you come across cases of that kind, notice the pupil and see if I am right or wrong.

As to the bacilli in the feces, Rosenberg says (you will find an admirable article on this subject in a recent issue of the Journal of Medical Science), the germ is found in the feces long before you find it in the sputum. He says he has found it in patients without any cough, and he advises the examination of all suspected tuberculosis cases.

It is very well worth trying. It is extremely simple. You use the Pappenheim stain, instead of the acid.

As to the clergy, I think it would be well for us all to see the pastor to whose church we go, and ask him to give a sermon each year or so, upon the "Great White Plague." I have done that and we should continue to urge the people through the churches by practical common-sense sermons from the pulpit, with tuberculosis as the subject of the address. I think that an admirable plan, and one easily carried out.

DR. A. H. HAYDEN, OF SUMMERTON:

Mr. President, Dr. Young's paper and all discussions thereon, has laid, and very

properly, the greatest stress of all upon prophylaxis. And while I am not rising to discuss any point in the paper, or that has been brought up in the discussion, I wish to call special attention to a matter connected with prophylaxis which, so far as my experience goes, or my knowledge, through conversation with physicians in this state, and others, seems to me to have been entirely neglected, and to be one of the most important points in prophylaxis, so far as tuberculosis is concerned, that is, an entire absence of care which should be thrown around our school children, particularly in the graded schools of this and other states. This matter interested me so much, that simply as a prophylactic measure, which I think should be in general practice in all graded schools, I, in my connection with the Board of Health, suggested to the Board of Trustees, before the schools opened last fall, that before each term the school buildings should be most thoroughly disinfected. They saw the importance, consented, and I relieved the local health officer of that duty, and supervised the disinfection of the school buildings of Summerville personally, that it might be properly done.

Now, I happen to know one graded school (I call no names, and mention no places), where, to my certain knowledge, there are to-day two teachers shut up daily in rooms with young children—at an age probably the most susceptible in life—and where, outside of the bedroom of the mother, or some other sufferer with tuberculosis, there is no greater place of danger, who to-day have tuberculosis.

One of these teachers that I have in mind, I know has repeatedly, for two years past, been given the serum treatment, Kock's treatment; and I will dare say there are many more such teachers in our public schools, and I have known them in private schools, in advanced stages of tuberculosis. These two teachers are in charge of young children, shut up in the room with them from nine a. m. until two p. m. Some of these children are members of families who have weakened, enfeebled respiratory tracts.

Now, it has seemed to me, for a great many years, that this matter should be

taken up by all state boards of health, and if necessary, state legislation asked for against permitting such teachers in our schools.

They lay great stress upon a certificate to prove a teacher's ability to teach. I would much rather see a teacher required to present a certificate of health—not from any and every doctor—but from a competent physician, whether or not there is a suspicion of tuberculosis existing, and have it that each teacher in South Carolina be required to present a certificate to the Board of Trustees, before being elected to teach in any public school in South Carolina, guaranteeing that they are not tuberculous subjects. I have seen more than one case of tuberculosis of early life, which I believed to have been contracted in the school room from tuberculous teachers.

DR. J. J. WATSON, OF COLUMBIA:

Mr. President, in every medical society you are going to find a kicker—perhaps three or four. What Dr. Dawson has said—that the jealousy that arises when a man tries to educate the public through the press—is true, and the only way to overcome that is for the council or whose ever business it is to request the medical society to select a man capable of writing intelligent articles to the laity, and have it printed through the daily press.

Now, the papers are not going to discontinue printing advertisements which are pure straight lies, for the reason that they get money for them. The manager of the paper is not running it for the elevation of the public; he is running it for money. He is not going to discontinue the printing of the advertisements of "Dr. King's New Discovery," or any other article, so long as he is well paid for it; and it is up to the medical profession to have a statute passed, but the public cannot be educated except by medical men, and they cannot be educated except through the daily press, and they cannot do that, as long as everybody jumps on him for it.

DR. FILLMORE, OF AIKEN:

I think we ought to proceed with great caution, in order not to arouse petty jealousies and antagonism. I told some one this morning I thought I had spent

more time in Aiken County trying to avoid antagonism, than in organizing a tuberculosis league. There is an Oriental saying that one overcomes hate—not by hate, but by love; and we know we cannot overcome evil by evil, but by good and we should move as wisely as serpents, but harmless as doves; and we do know that all men who start out to do unpaid work on the face of it are under suspicion. They think we have an axe to grind. We should proceed with that in view, and knowing that, and proceeding along these lines, we can get the co-operation of the community.

I think all the physicians should be invited to take part in this work. In Aiken we asked the Medical Society to devote a meeting to the prevention of tuberculosis. We had the endorsement of the Society, promising their co-operation; and if we have had some success there, I believe it is because we did get the co-operation of the physicians as a class to abet us, and we have made physicians members of the board, and officers, and we have gotten the clergy to take office. Some of our meetings were held in the church, in which the members were present and took part in the exercises.

It is not enough that we should desire to do good, but to be wise enough to accomplish the good is the thing that needs to be kept in mind. And, as wisdom is not confined to any individual, any physician or any other member in a community, and undertaking to do a work of such vast importance, we should try to bring into it all the wisdom of the community.

DR. FURMAN, OF GREENVILLE:

Mr. President, I was much pleased with Dr. Hayden's remarks, a while ago. The profession should begin at the bottom and not at the top. Sporadic efforts, from time to time, may be of some service.

You want to get everything of any service, but in the public schools education, as a rule, starts. The children ought to have some information themselves, but more especially the teachers. To close up a lot of children in a warm room with a teacher already suffering

with tuberculosis is a bad thing.

The school boards lend a willing ear to the physician, as well as to the preacher, and we made some little attempt in my town to promote this cause. We went to the superintendent of education in the city, and he has been stirred up on the subject. Individual cups have been put in the schools, and he has sought out those who looked suspicious, as far as possible. I think a great deal of good can be accomplished there.

I believe this work should be done principally through the county medical societies. If one goes to the teachers and presents the matter to them, they will do what they can to eliminate the disease, and I believe this is the best way.

DR. D. D. SALLEY, OF ORANGEBURG:

I was going to say, in reference to the advertising feature of these articles, that has been brought out—that could be eliminated by having the society appoint a man who is competent to write these articles and speak with authority on this subject, and let them appear not as coming from this man, but as coming from the medical society of each county. This I feel sure, would give added prestige to the society.

In some counties where we have a majority of nonmembers (I think they are few), they think they can carry more power than the members of the society.

I think this will add power to our position and knock out all the private advertising features.

DR. C. F. WILLIAMS, OF COLUMBIA:

I believe we all recognize that education is the foundation of Public Health work, but to inaugurate a system for the education of our people is a task not easy of accomplishment. To illustrate: At the first meeting of the Executive Committee of your board, which you elected two years ago, one of the first things considered was the means by which knowledge of the communicable diseases might be conveyed to the public. At this meeting a committee was appointed to appear before the state board of education at its annual meeting, and present such resolutions as would best insure our getting the mode of transmission and preven-

tion of communicable diseases taught in the schools. Our committee met with the members of that body, and reported that their resolutions were enthusiastically received, but I am sorry to say nothing was accomplished. At a subsequent meeting of your committee it was resolved that we urge upon your county societies the importance of uniting in an effort to extend sanitary knowledge among our people. Accordingly each county medical society was requested to arrange public lectures upon appropriate subjects, such as the suppression of tuberculosis, typhoid fever, small pox and other infectious disease, school hygiene, etc. In this effort we were also disappointed, for only two societies took any action.

When no action was taken by the state board of education on the resolutions presented to that body, we then drafted a bill, the purport of which was to require that the means of preventing the communicable diseases be taught in the schools, and had this bill introduced in the house of representatives last year. The bill failed of passage. It was again introduced this year, and now remains on the calendar. I merely mention these facts to give you some idea of the obstacles in the way of inaugurating a campaign of education.

DR. WYMAN, OF AIKEN:

I would like to know if the question has been put before the legislature in regard to the anti-spitting law?

DR. WILLIAMS:

An anti-spitting bill was introduced in the senate at the last session, but was not reached. This bill remains on the calendar and will come up next year.

DR. BURDELL:

Mr. Chairman, I would like to say just a few words more. I would like to say something about a bill to prevent the contagious diseases in the schools. That bill will come up at the next session of die or get well, to keep the disease from has done all they could to get that through. The only way to get that through is for the individual doctors to go to work with the representatives from their counties,

show them the need for it, and insist that they vote for the passage of that bill.

Last year, at Anderson, notice was given that such a bill would be introduced, and the men were urged to help the legislators. Don't leave that to the state board of health. Those men have lots of work to do.

DR. DAWSON: How can we get a copy of that bill?

DR. BURDELL: I don't know sir. I can almost give you the wording of the bill: "Be it enacted by the house of representatives," etc., "that in every public school in South Carolina shall be taught the danger of communicating preventable diseases, and that data prepared by the State Board of Health shall be used."

Michigan has such a law. In addition, we go further and require that every teacher shall make a test of the eyesight and of the hearing of the pupils. Now that is just a rough test, by which she can detect some defect in sight, hearing, or of adenoids.

That bill will come up at the next session. If the members of the South Carolina Medical Association will each man get after his representative at home, and explain what we want, I believe it will pass.

DR. SOSNOWSKI:

As to Dr. Cornell's question as to the examination of the stools for the bacilli, quite a while back experiments were made by feeding animals with dried tuberculous sputum, and in three days, time the typical bacilli appeared in the stools and in six days in the urine, long before they appeared in the mouth secretions and from the secretions of the lung. Also it was found that the tubercle bacilli that had lost the staining qualities, when injected into guinea pigs, were still infectious.

It seems to me as to educating the public, that we are only sopping up around the edges of the leak. We will never get the disease controlled until we get segregation of tuberculous patients. We have to have them segregated until they dies or get well, to keep the disease from spreading. The public will have to be ed-

ucated up to that, and we will require a central bureau, to which every case will have to be reported, and it will require a law, fixing a heavy penalty on the non-reporting of any case. That is the only way to get control of the disease. The disease should be controlled. The expenses to the United States are over one million dollars annually from the death from Tuberculosis, and with that money we could erect enough hospitals to segregate every case of Tuberculosis until it was cured or died.

DR. YOUNG CLOSES:

Dr. Cornell spoke of the early diagnosis by the microscope. I think by waiting to make the diagnosis with the microscope we are losing valuable time. Today the diagnosis can be made by other means long before the scope would be of any service to us, namely, by tuberculin, cutaneous or sub-cutaneous application, Alexander & Company, of Marietta, Pa., get out little tubes of tuberculin for the skin test. I carry in this little tube an inverted cone dental burr for scarifying for the application.

Everybody can carry this little package in the vest pocket and whenever he comes across a suspicious case the test may be applied, and if we get a positive reaction the most rigid physical examination will usually confirm the reaction. Directions are always furnished with these tests. Every doctor should also carry a stethoscope and never go without it. Every doctor should know how to bring out these physical signs, for without this knowledge his stethoscope would be of little good to him.

When I find a suspicious case reacting to tuberculin, whether he has cough or not, with a sub-normal morning temperature, I furnish this patient with a thermometer and insist on his keeping a record of his temperature, taking it before breakfast and between the hours of three and four in the afternoons. If I am still doubtful about my case I do not hesitate to give tuberculin sub-cutaneously, and have never found any trouble from the use of it, when purchased from

reliable houses such as Alexander & Company. From these men you can get the diluting tubes, syringe and the most careful directions for the applications of this most valuable test.

I use my microscope only in advanced cases where a specimen of sputum may be secured.

Referring to Dr. Dawson's remarks, I must say that the editors of our papers have been very courteous to me and my articles have been placed in the first columns of their papers, and they have encouraged me recently to write other articles.

As far as the criticism of the profession of Rock Hill and York county is concerned, if there has been any it has not reached my ears, and I feel sure that I have had the thorough co-operation of every doctor in the county in this work.

To show the interest our people have taken in this work, we met in the Sunday-school room to hear our first lecture. The attendance was so large that we had soon to remove into the church. At the meeting for organization the attendance was so large we did not have seating space for the people.

Some one has to do this work, and if a few should criticise we should pay no attention to it; just go ahead and do what you think is right and take the results.

Before leaving the diagnosis of tuberculosis, I would like to say that Dr. Arnold C. Klebbs, of Chicago is writing a work on this subject. Dr. Brown, of Saranac Lake, writes a chapter on tuberculin, and Dr. A. S. Knox, of New York, writes a chapter on prophylaxis and hygiene. You will find this a very valuable book, and I hope every one of you will place an order for this work before leaving this meeting.

Referring to Dr. Taylor's remarks that it is only when corn starch is used to stiffen the cloth that it is carried through heated rollers; even after this it may be inspected, folded, tied, and packed by infected people, at which time it may easily become infected.

A CASE DERMOID CYST SUCCESSFULLY REMOVED BY OVARIOTOMY.

By the late DR. B. W. TAYLOR, of Columbia, S. C.

The patient, Hester Williams, was a negress of pure African descent, age seventeen years, of healthy parents.

She has always enjoyed health, and began to menstruate at the age of fifteen years.

The commencement of her troubles was in May, 1877, when she had severe pain in the abdomen, with fever, which was thought due to colic.

From this month to my first visit on November 12, 1877, she claims to have been an invalid, and unable to do any kind of work.

I found her in bed, reduced in flesh and strength, with a temperature ranging from 100 to 102; pulse 120 to 140; respirations 30 to 40; night sweats; pain in passing urine and faeces.

No menstrual flow for several months; abdomen painful on pressure, and a tumor, the size of the foetal head, occupying the right iliac and hypogastric regions.

After a careful examination, it was evident that her symptoms were connected with diseases within the pelvic region.

The tumor filled the pelvic cavity, pushing the uterus to the left and against the illium. It was fluctuating, and a vibratory thrill could be felt. Both tumor and uterus were immovable.

The uterus cervix was against the illium, but the body could not be made out with the finger; but on introducing the sound, it was found to be less than two and a half inches in depth, and slightly

This paper was published thirty years ago and is furnished us by Dr. J. H. Taylor, of Columbia, S. C., a son of the late Dr. B. W. Taylor.

This paper illustrates the difficulties of that time, and will be of especial interest in contrast to the development of modern surgical practice. The patient, 3 years ago was well, but cannot be located now.

—Editor of the Journal.

antiflexed, and no motion imparted to it by the instrument.

On the next day, Dr. A. N. Talley visited the patient with me and diagnosed the case as a unilocular ovarian cyst, with abdominal adhesions.

We determined to aspirate the tumor at once, to confirm the diagnosis, to relieve the pressure and tension, and most probably to improve her condition, and the better to prepare her for an extirpation of the growth.

A medium size needle of the aspirator was thrust into the tumor on the mesian line, and about eight ounces of a brownish, thick, stinking fluid, containing pus, was drawn off.

The flow then ceased, but the tumor was evidently not emptied; and failing in any to reproduce it, the needle was withdrawn and plunged into the tumor to the right of the mesian line, and now the growth was evacuated, making in all about one pint of fluid.

Under the microscope, we found in the fluid, pus, with some few blood corpuscles. On heating some in a test tube, it was nearly solid albumen.

Upon examination now, per vaginam, the thick sack of the tumor and the uterus could be made out, all being firmly bound down by adhesions, and in no way displaced by the emptying of the sack.

I determined to operate so soon as the sack again filled.

The tumor continued to discharge through the puncture, on the mesian line, up to the first week in February, losing its offensive odor, and becoming of a lighter color.

With this change there was a corresponding improvement in flesh and strength; night sweats ceased; temperature remaining at 100 degrees and pulse 116.

It was now deemed best not to operate as long as there was any improvement, which progressed to a certain point and then ceased, as the cause of irritation.

still existed.

It was the first week in February, 1878 that the fistulous opening closed, and with it she was more complaining and the operation was now demanded.

On the 23rd. of February, with the assistance of the following gentlemen, viz: Drs. Talley, Trezevant, Howe, Green, Heinisch, and Philpot, I proceeded, as follows, to the removal of the growth:

At the point in the mesian line, where the discharge for months had issued from the sack, there existed a spot about the size of a three-cent piece, which was only covered by skin, and in dividing the tissues I avoided this point.

I began by making an incision four inches long to the left of the linea alba, and on reaching the cyst, found the adhesions were parietal, omental and intestinal.

I now endeavored to separate the adhesions posteriorly and to the side, before touching those in front, for fear of a rupture of the sack, and consequently a flow of its contents into the peritoneal cavity.

But the sack gave way on the right side before reaching the last point named and some of the fluid escaped within the cavity.

I now quickly broke off the attachment and drew the tumor out of the cavity, and tied the pedicle with whip cord. The pedicle, being very short and broad, was cut off as near the tumor as possible, and a superfluous portion, protuding beyond the ligature was afterwards removed.

The peritoneal cavity being well cleansed, and all hemorrhage having ceased, the ligature was brought out at the lower end of the incision, and one of Thomas' drainage tubes passed down above it into Douglas' cul-de-sac, the wound closed by the usual interrupted suture of silk, and the other dressings applied.

During the next twenty-four hours the symptoms were all favorable, but on the afternoon of the second day there was a rise of the thermometer to 101 degrees, pulse 144; and on removing the cork from the glass tube, it was filled with bad smelling pus.

From this time as long as needed, the

tube was syringed out every fifth hour with a solution of carbolic acid, salt and water.

After the first syringing, the thermometer fell to 99 degrees. On the fourth day the thermometer rose to 103 degrees, which was due to pus, which escaped from the four upper stitches, on readjusting the adhesive strap.

After this it varied from 100 degrees to 102 degrees, and on the ninth day was 99 1-2 degrees. The bowels acted without assistance on the sixth.

This now was confirmed by the happy effort of the aspiration, with its improvement in the general condition of the patient.

The cyst all this time was evidently prevented from rupturing by its walls long nourished by the adhesion to other parts.

On examining the tumor after removal I can now explain the cause of one puncture of the needle not emptying the sack.

The needle each time entered the sack, but in the first case, after flowing for a time, was occluded by the bunch of hair which was found within.

A few days since the patient was examined per vaginam. I found the fundus of the uterus as before against the illium, but the cervix had come to the middle of the vagina, producing a left lateral obliquity of the uterus.

REMINISCENCES

of Dr. L. K. Philpot, Columbia, S. C.

Apropos of the above paper, descriptive of what I believe to have been the first Ovariotomy done in this city: I would append some reminiscences of the early days of abdominal surgery in Columbia. It was customary then for the surgeon who was going to operate, to invite almost every physician of good standing in the city to be present and assist. And they were there. If they were not without some good reason, it was looked upon as somewhat of a slight.

I well remember the 23rd. day of February 1878 when Dr. Taylor, with his corps of assistants, consisting of Drs. Talley, Howe, Green, Trezevant, Heinisch and myself assembled at a little two-story shack just outside the city

limits. It still stands with the stair on the outside, in the bottom back of Benedict college.

With great eclat the operating room had been prepared. The operating table consisted of an old fashioned greasy, dirty kitchen table covered with a pair of old gray blankets, over which was a white sheet. There was a bowl, perhaps two, with some buckets of water and some common soap, known at that time as "turpentine soap," for the surgeon to wash his hands with; anticeptics were not used on the hands. I was delegated to administer the anaesthetic, which was chloroform. With everything in readiness the patient was placed upon the table—a small, emaciated negro woman, weighing perhaps ninety or a hundred pounds, with a large swelling in the lower right side of the abdomen.

When the patient had been anaesthetized Dr. Taylor proceeded to make his incision through the mesial line of the abdomen and the tumor exposed to view. He then withdrew from the abdomen the mass finding its pedicle, which he ligated most thoroughly with whip cord—a great big strong cord made of linen, I think, similar to that used for fishing line—probably it was really a piece of fishing line. This he unwound from a holder of some kind without any previous fancy touches in the way of sterilization. After tying the pedicle he left the ends of the ligature quite long and then with his scalpel he removed the mass in toto. With sea sponges he cleansed the abdomen externally, closed the abdominal wound with silk around a long glass drainage tube and the ends of the ligature. As an additional security to the sutures he used adhesive strips of old fashioned lead plaster, made to stick by heating. The entire operation consumed about two and one-half hours.

Following the operation he visited the patient about every five hours for at least a week to uncork the glass tube and wash out the cavity with carbolic acid and salt waters. At that time in this section carbolic acid was the principal agent used in cleansing dirty wounds. I frequently went with him to see the patient and remember often seeing him pulling on his ligature ends to see if it

had separated yet. At that time a glass tube always was left in the wound after abdominal section.

The microscopical examination was done by Dr. E. E. Jackson, a druggist, who alone knew the use of a microscope in this community.

This paper recalls another very interesting operation of that time, at which I assisted, done by Dr. A. N. Talley.

The patient, a woman from the country, was brought to Dr. Talley's office in a wagon, and there being no hospital facilities, she was taken to what was then the city alms house, which stood then in the rear of the present Columbia hospital. This was another case of abdominal tumor. As usual we were all present and assisted. Of them all I only remain.

After the abdomen had been opened and the tumor exposed, efforts at breaking up adhesions were made by Dr. Talley. When he had found what he supposed to be the pedicle, he put on his ligature, divided the pedicle and removed the mass. While sewing up the abdominal incision, the anæsthetist suddenly discovered that the patient had crossed over the Great Divide.

When the mass was examined the doctor discovered that he had done without knowing it, a complete hysterectomy. The tumor was an ovarian cyst and was removed intact. The incision extended from the tubes to a point about midway between the umbilicus and the ensiform cartilage, and while the doctor busied himself with the tumor, others of the assistants kept the guts back with their hands alone.

A few words regarding one of the men in the profession at that time, thirty years ago.

Dr. Trezevant, I knew very intimately and in my judgment he was by far the ablest practitioner of medicine, he had no leaning toward surgery whatever, that has ever been in Columbia. He was a hard student, a deep thinker, and a man who studied his patients, their idiosyncrasies as well as their ailments, a thorough diagnostician, and with it all a capable therapist. He died at about fifty years of age in the midst of a most useful career.

As to his appearance, he was about five feet ten inches, of medium build, brown hair and piercing brown eyes—deep set jaws, a countenance expressive of determination and the most determination I ever saw in my life and one of the hardest workers.

In manner he was brusque but there

was nothing of the "burgeois," nothing of the "street," which one meets so frequently in those who assume this manner. He was a gentleman in every sense of the word.

The other physicians have so recently passed from among us, comment seems unnecessary.

CHLOROFORM OR AETHER.

BY WALTER CHEYNE, M. D., Sumter, S. C.

Nearly twenty years ago in one of the largest hospitals in New York City, I gave æther at least five times a day. It was then given in the cone, and it was not only a mental, but also a physical task upon which I learned to look with dread.

Without warning, during the administration of the anæsthetic, I have found myself doubled up in one corner of a twenty foot room.

In three years hospital experience in New York City, I can remember the giving of chloroform but once. My teaching and instruction during that time was that chloroform was a dangerous anæsthetic, not to be used from choice.

During the past fifteen years, I have used chloroform in all suitable surgical operations as a matter of choice. I have not eighteen thousand operations to report without a death. I have a good many hundreds of anæsthesias without a death. The ease of administration of chloroform in skilled hands, over æther is really not comparable. My records show that only three out of a hundred cases of chloroform administrations show any violent stage at all.

During the last two years, apparently every hospital in the south has been falling over itself to substitute æther for chloroform. My opinion is that this action is from blind prejudice.

Every Northern Hospital and School, to-day teaches, as I was taught, that chloroform is a dangerous anæsthetic. It is condemned without a fair hearing,

without trial, by prejudiced writers without experience.

It has happened to my lot to fairly test both anæsthetics. It was with fear and trembling that I gave my first chloroform, and only after years of experience could I say that chloroform is my anæsthetic of choice.

In looking over the literature to find cause of this prejudice, I finds deaths reported from chloroform—especially in the dentists' office—without proper preparation, with clothes compressing abdomen and chest, often in the semi-recumbent position, chloroform has been administered in the dentist's office and death has followed.

It is undoubtedly a fact that the least anæsthetic a patient takes, the less effect it has upon the human body. It is undoubtedly a fact, that it takes less chloroform to anæsthetize a patient than it does æther.

Aether, without dispute, is pungent and irritative to the air passages. The stage of excitement and violence, as has been intimated, is much more violent and prolonged than chloroform. Muscular rigidity is more persistent and troublesome tremors may appear. It is claimed in one of the largest clinics in the world where æther is given, that women are the best anæsthetizers, on the theory that they pay attention to the anaesthesia and not to the operation. This is not true in my personal experience and I believe that anæsthetizers like poets are born and not made.

I believe that the anæsthetic should be one of choice, just as the method of operation should be of choice. We know that aether produces increased se-

* Read before the Surgical Section of the South Carolina Medical Association, Summerville, S. C. April 21, 1909.

cretion of mucous from the membranes over which it passes. To give æther to a case of chronic bronchitis and emphysema, from a poll parrot idea of anaesthesia, would be culpable.

Aether always increases the pulse rate and the volume of blood in the arteries. To give æther to one with arterio schlerosis of the arteries, knowing that the subject is liable to apoplexy, is not scientific treatment.

Nitrous oxide gas I regard not as a true anaesthetic, but it simply paralyzes muscular feeling by asphyxiation.

Let me relate a personal experience when my appendix was removed. The nitrous oxide gas bag being placed over my face preliminary to aether, I was told to breathe hard. I obeyed. I was told to lift my left hand after three minutes. I obeyed. It may have been six or sixty minutes after, I was requested to raise my right hand. I tried, but could not get it up. I was as perfectly conscious as I am at this minute. The assistant at this stage remarked to the anaesthetizer, "I can't feel his pulse at the wrist." The anaesthetist answered, "O, Hell, give it to him" and instantly a wet aether cone choked me to unconsciousness. The brutality of Nero, could not have surpassed this performance.

The International Text Book of Surgery says: "Chloroform, which is seven times as strong as aether (Waller) is quicker in its action, more pleasant to take, less irritating to the mucous membranes less bulky and less expensive and is usually attended by some what less nausea and vomiting. There are certain conditions in which chloroform is to be preferred for special reasons. Those operations liable to be complicated with spasm of the glottis, oedema of the larynx or lungs, or a profuse secretion of fluids in the air passages, can be done better and more safely under chloroform. This agent is to be preferred in the following affections:—membranous croup, acute or chronic laryngitis, œdema of the glottis or lungs, injuries to the larynx, deep cervical cellulitis, malignant disease of the throat or anterior portion of the neck, tumors situated deeply in the neck—as bronchocele—foreign bodies in the air passages, in the oesophagus, chron-

ic bronchitis, asthma and emphysema, in fact all operations on the head, throat and lungs are acknowledged best accomplished by chloroform as the anaesthetic.

Patients having advanced disease of the kidneys are poor subjects for either agent, but many writers claim that there is less irritation of these organs and therefore less danger, under chloroform.

Now undoubtedly the facts are these; when you have a death from chloroform, it is immediate, on the table before you; where death results from aether, it is from pneumonia a week or ten days after or from a nephritis three or four months later.

Every man of experience must admit that aether takes much longer to be eliminated from the body than does chloroform.

We, of the Southland, should not desert chloroform. Why? Chemically, by reason of its volatility, and the difficulty of keeping aether, our semi-tropical climate favors chloroform.

I frankly admit that chloroform cannot be administered by a novice. This is no objection to chloroform. How many times have you heard your patient say, "Doctor, I do not fear the operation, but I fear the anaesthetic." It is our duty to supply a skilled anaesthetizer.

Ambulance cases in emergency operations, by an unskilled operator, had best be administered aether, when there are no special contra-indications.

Chloroform should always be preceded by the hypodermic administration of morphine an hour before the anaesthetic is given. Atropine is to be added in thyroid operations.

Alcoholic subjects undoubtedly do best with chloroform. A fatty heart while in danger from any anaesthetic, has less arterial pressure, less volume of blood in the arteries put upon it by chloroform, and its elimination is more rapid.

An overdose of chloroform is almost instantly detected by the color of the blood and the stoppage of the respiration. In such cases, the removal of the anaesthetic and the administration of oxygen is responded to more quickly in chloroform than aether.

In this paper I have not the time to go into the climatic effects as related to chlo-

roform and aether; but I assert that chloroform has been maligned, unjustly tested and prejudiced observers have written its supposed clinical history in the text books.

DISCUSSION

DR. T. P. WHALEY, OF CHARLESTON, S C

I am very much interested in this paper.

Dr. Cheyne says one of the reasons we should not use aether is on account of the difficulty in keeping it here. I would like to ask if he has given up the use of ice. It has been a long time since Dr. Cheyne studied in New York and gave aether, and I think that if he will go back to New York now, he will find that they give aether very differently.

I used to be in favor of using chloroform, but I am now absolutely in favor of using aether. Aether, in the hands of a competent man, is much safer than chloroform; in fact, I believe is absolutely safe. I have seen aether used in an operation lasting an hour, where only 30 drops of aether was used. Everything depends on the method of giving it.

The methods used in some of the New York hospitals sometime ago is obsolete now. Aether given through the ordinary Esmarch Cone, with the patient properly prepared before hand, will put your patient under the influence of the anaesthetic sooner than chloroform. It is a hour before the operation. In that way, the patient is quieter, and takes much less of the anaesthetic.

Last year in New York, I saw them start anaesthetizing with kelene and it is the quickest thing I have ever used. It is practically instantaneous. The relene (kelene) is sprayed on the cone; the cone is put over the patient's nose, and instantly the patient became unconscious and the aether is continued. The operation required nearly three quarters of an hour, and the patient was entirely unconscious from the time of the administration of the kelene. Nitrous oxide is now obsolete.

Since I have been using aether, I have absolutely no fear of my patient on the table, and I would rather get my patient

off the table, without any trouble and take the risk of this bug-a-boo of pneumonia, for it is nothing but a bug-a-boo.

DR. F. J. CARROLL, OF SUMMERTOWN S C

It seems that I always report deaths. From the standpoint of chloroform, sometime ago I had the misfortune to lose a patient on the table, under the influence of chloroform. I then began using aether, and after probably two operations using aether, I had a case in which I used aether, as Dr. Whaley suggested, starting first with the kelenite, and then using aether. The patient got off the table very nicely, and lived and got along very well for seven days. Then on the seventh day she did not pass a drop of water and died. Of course, some of you will say that I tied the ureters, but I made an examination and found that they were all right, and I found the kidneys so big that I couldn't tell whether I had the liver or not. The doctor who had the case before me, examined the water and told me it was all right. What caused her death, after seven days, I do not know, but I do know that I signed her death certificate from acute nephritis." She died with normal temperature.

DR. W. A. BOYD, OF COLUMBIA:

I think Dr. Cheyne should consider, the fact that northern writers have not given chloroform any consideration, and will have aether, because they are well versed in the use of aether, and like it best, and bear in mind that in the South here, it is only of recent date that the men have started administering aether. Consequently these men are not as successful in administering aether, as you men who have administered chloroform since your graduation.

I believe aether, given by a man, and chloroform given by a man, these two men equally proficient in their profession, that the best results will be obtained from aether. I have given aether a good many times. I gave aether for two years in the Philadelphia hospital, have given aether constantly in Columbia. I have yet to lose a case, have yet to have a man call my attention to a case of aether pneumonia or nephritis.

The average man pours aether on, because he is told it is safe. That is not

right. It should be given only by the drop method, using only enough to keep the patient unconscious and relaxed and so he will not interfere with the surgeon. That cannot be done by a man who gives aether occasionally; only by a man who is well versed in the administration of the anaesthetic.

In all cases where the patient is to be operated on and aether administered, the patient should be given a hypodermic of morphine and atropine. It is my custom to determine the amount by the condition of the patient. By doing that you will lessen the amount of aether necessary to be given and you will allay the irritation which comes on.

It is only on rare occasion, that you will have any violence on the part of your patients, if aether is properly administered. Let the cone lie on the face a minute or two before administering the anaesthetic, tell the patient that the anaesthetic will irritate them and burn their nose and throat and that they will feel that they are going to suffocate.

Administer the aether drop by drop and you will put your patient to sleep with a minimum quantity of aether and without trouble. Your patient can be kept asleep then with a very small quantity of the anaesthetic. You will find the pulse gets stronger. You can repeat the atropine, if necessary. The patient will return to bed in a better condition, and they are less apt to have shock.

DR. A. E. BAKER, CHARLESTON:

Until a short while ago, I was quite wedded to chloroform, and I had been giving it for fifteen years every day, and frequently inverted the patient.

In subsequent investigations of aether and chloroform on the brain in brain surgery, I found that chloroform produced anemia of the brain, and the brain will occupy a smaller space. In giving aether the brain would become congested, so much so that I had to go back to chloroform to close the wound.

That brings out a very important point and that is, that in all our surgery, especially on the weak and depressed, we want the brain filled with blood, in that it provides for all the organs of the body.

If you notice it, you don't hear of our

northern brethren inverting their patients. The reason is, that the brain has the blood, and they don't have to invert the patient to get the blood to the brain. Why is it, in severe shocks, you elevate the foot of the bed? It is to let the blood go to the brain. We want the patient in the best condition and to keep the brain filled with the normal fluid.

Chloroform is an ideal anaesthetic. Last June, in Chicago, the Committee on Anaesthetics said that chloroform and aether were equally safe in the hands of an expert. That is just it. It is seldom that we have an expert at hand.

Again, why do we have pneumonia after aether? As Dr. Whaley has brought out, the old method of giving aether with the cone,—no air at all, and you are breathing the same air over and over, finally bad air—is enough to cause irritation, but the new method does away with that. We are not giving chloroform or aether to the extent we once gave it to patients, but we give it to a certain degree just so much and no more. Therefore, we don't have to have our patients rally from the effect of the aether.

We don't starve our patients for 24 hours before the operation. We let them eat the normal food up to the morning of the operation. If the patient is in good condition, he is not depressed, as formerly. It is natural for secretions to form under the old method of inhaling aether, but the point I want to stress more particularly is the brain being anaemic under chloroform, and supplied with blood under aether.

DR. FENNELL:

I would like to ask Doctor Whaley how he gives aether, so that it takes only thirty drops to anaesthetize the patient. If I have a patient with nephritis, I give chloroform. I give either chloroform or use cocaine. I don't see how the Doctor can give aether, if the patient has some trouble of the lungs or kidneys.

DR. M. B. MUNSON:

I feel that the paper just discussed is certainly an able article, and I am very much interested in both the paper and his experience and experiments, and also the discussions.

DR. O'BRISCOL OF CHARLESTON:

I think aether is the safest anaesthetic, but I think much of the adverse criticism against chloroform is prejudice. I think frequently chloroform is administered under conditions where it ought not to be. I think under good conditions, it is not unsafe. I noticed while giving it in Charleston that on certain kinds of days, under certain conditions of the weather I could administer chloroform, and on other days I could not. That there were certain kinds of days when certain patients did badly under chloroform; for instance, on a certain day, if one patient did badly under chloroform, all the other patients did badly that day. I heard no explanation of this until I met a surgeon, who for several years lived in Teherin, and he said that they could not give aether in Persia and that they gave chloroform, and that all the deaths he had seen from chloroform during all those years had occurred on cloudy days, and in my experience, in the north where they give aether all the time, it has occurred to me that their preference for aether is probably due to climatic conditions.

I think there is some carelessness in the use of chloroform. I have seen on the street cars this sign,—“Don’t talk to the motorman.” We should say “Don’t talk to the anaesthetizer.” If I were a surgeon and saw a person administering chloroform, looking off from the patient, and paying no attention to what he was doing, I should either change him immediately, or not have him give it again.

There is apparent to me, in watching a patient closely after administering the anaesthetic, a change in the complexion, before I notice a change in the pulse. This, it seems, might be due to the flow of blood from the skin, which might lead us to believe that it was the congestion of the blood within the larger arteries of the trunk, and I think this is a very valuable criterion in giving chloroform. Chloroform, given under ideal conditions, is by no means as unsafe an anaesthetic as it is supposed to be; where we have a careful anesthetizer and a small quantity is used, it is more safe than it is, as it is usually given.

The French surgeons claim a superiority over the English surgeons in that they produce anaesthetization much more slowly than we do.

I would like to enter a plea as an anesthetizer, to all surgeons to lend their aid in seeing, when the operation takes place, that ideal conditions of ventilation exist in the room. That when operating rooms are built, they will see that they are properly ventilated, for frequently in that way, we can improve the condition of our patient. Then, again I think there is as great danger from too little chloroform as from too much. We have the higher centers destroyed by a small dose, and the involuntary centers disturbed, placed in an unstable equilibrium, and in that case the reflex action upon the heart centers is much more dangerous.

By DR. A. B. KNOWLTON:

I am sorry not to have heard this article on chloroform. Now, it does not seem possible to me to decide this question.

Leaving that question aside, there are two questions to be considered, which are important: There are patients who cannot take chloroform without dying, though they do not have heart disease, if I may judge from my experience. On the contrary, there are cases which cannot take aether, except in such large doses that it produces pneumonia. I have known of several cases, where we gave chloroform and it failed; we gave aether and they got along nicely. I have had patients who could not take aether; we gave chloroform, and things moved along smoothly.

Another thing: We all know that the North has the majority of experience with regard to use of aether, and that is one of the greatest reasons why we are in favor of chloroform and they are in favor of aether. There is another thing back of that—it takes an intelligent, watchful observer to give chloroform properly, but any jackass can give aether, if the patient can take it, but it takes an artist to give chloroform without killing the patient under any circumstances. I therefore, feel proud that we of the Southland can give chloroform, and the Yankees can’t give anything but aether.

DR. WALTER CHEYNE CLOSES:

I am very much obliged to you gentlemen for the discussion. I expected to be absolutely alone, and am very much surprised but very glad, to find so many friends.

In reply to Dr. Whaley, I will say that the climate has a good deal to do with it but that the climate here is no objection to the use of chloroform. The Army and Navy have had the subject investigated, and have made up their minds, I believe, to carry chloroform, instead of aether, I assure him that nitrous oxide is not obsolete, and in Richmond today, and in many other places in the country, they use it. I can also assure Dr. Whaley that aether pneumonia is no bug-a-boo; if you had been coughing with it for several days, as I have you would think it was the real thing.

In one of the largest clinics in the world, many times I have seen aether administered, and I have seen the patient anaesthetized, and the only thing I have to criticise is the way the anaesthetic is given. I have seen the patient tied to the table struggling and moving around; in fact, in an operation which Dr. _____ performed in Chicago, he was in a hurry and they gave very little of the aether, and Dr. _____ got interested and would not let them give the patient any more aether, and the patient waked up and yelled out, and the doctor told him to "shut up, he would soon be through."

Now I don't like that.

I agree with Dr. Baker thoroughly, when he says we ought to have a very competent anaesthetizer. I brought that out in my paper. Dr. Baker admits the excessive blood pressure on the brain, produced by the use of aether. The Northern doctors who use aether altogether, sign death certificates, too.

The points that I make are that the perfunctory giving of one anaesthetic in every case is wrong. Chloroform is my anaesthetic of choice. Aether is best given in an emergency operation, when no trained anaesthetizer is at hand.

Some say that my preference for chloroform is blind prejudice, and that I am just prejudiced against the use of aether. So many of our doctors here in the South go North and come back just saturated with the aether idea. They have been taught in the Northern schools that aether is the only anaesthetic. I have learned by experience that chloroform is the best anaesthetic, that it gives the best results, and I have chosen it as my anaesthetic of choice. We of the Southland should not desert chloroform.

By T. P. WHALEY, CHARLESTON, S. C.:

A gentleman has asked me about the thirty drops of aether administered in the case which I mentioned. I will say that Dr. _____ was the administrator, and he keeps a very accurate account of what he uses.

ALKALINE TREATMENT OF TYPHOID FEVER WITH REPORT OF CASES.

BY W. T. LANDER, A. M., Greenwood, S. C.

Two months ago, I had to make some bouillon for B. Typhosis cultures, to use in Widal tests. I was interrupted several times; with result that it was not properly standardized, and the bacteria failed to grow with the usual satisfactoriness. On carefully examining the bouillon, I found it was only slightly more alkaline than it should be. After producing a

satisfactory culture medium, I performed the following experiments:

Into each of six test-tubes I put 2cc bouillon, and sterilized the same.

To a was added 1|15 cc N|30 Sodium bicarbonate solution. To b was added 2|15 cc; to c, 3|15 cc; to d, 4|15; to e 5|15 cc; to f, 6|15 cc.

To each tube was then added, 1|15 cc emulsion of B. Typhosus. After 24 hours, the tubes were well shaken and a hanging-drop slide was made from each. Ex-

*Read before the Greenwood Medical Society.

amination showed a, b, c, hardly distinguishable. All these drops were full of a very motile luxuriant growth of bacteria. In d, e, f, the number and liveliness of the bacteria gradually diminished; f showing only six or seven motionless bacteria.

As a second experiment, four tubes of sterile standard bouillon were taken, C. D. E. F. The first was inoculated from tube c; the second from d; the third from e; the fourth from f. After 24 hours, hanging-drops from these tubes were examined. Those inoculated from c, d, e, showed good to fair cultures; but f, had produced no growth. So it seems that the bacteria in f had been actually killed by its slight alkalinity.

Since, in typhoid fever, the blood alkalinity is less than normal, the suggestion naturally offered itself that the growth of the bacteria in the body might be inhibited if the normal alkalinity were restored or increased.

Being invited by one of my friends to visit some of his typhoid patients, I presented this view for his consideration; and he kindly put at my disposal a case on which to try the plan. The results were so satisfactory that it was tried on other cases.

From the record of eight cases, the average time required for treatment was barely a week. By the time the alkalinity of the urine was established, the fever was practically gone. A few days more of full treatment were followed by a few days with reduced dosing.

Of course, diet, cleanliness, the bowels, and the liver, received careful attention; but these cases—all with incompetent nurses—had to be treated almost without baths.

In diagnosing these cases, consideration was given to the clinical symptoms and to the Widal reaction, which, in every case, was promptly positive.

Without the kindness of Dr. Epting, Dr. Harper and Dr. F. M. Lander, I should not be able to present this report; and these gentlemen have my sincere thanks.

REPORT OF CASES

In the following thirteen cases, I was associated with Drs. Epting, Harper, Ma-

son and Frank Lander. The courtesy of these gentlemen was very kind; and their confidence calls for this avowal of heartiest appreciation.

The alkaline treatment was used in addition to conservative use of calomel, oil, turpentine, diet, etc., as indicated.

1. Mrs. B—had been sick a week, and presented the usual typhoid symptoms. First seen May 23rd. Temperature, a. m. 101.6, Widal and Diazo positive, urine very acid, alkaline treatment pushed at once. May 26th, temperature 99-99.5. May 30th, Widal and Diazo negative.

2. Emma G—July 20th, temperature a. m. 101, headache, general listlessness and discomfort, with abdominal tenderness. Calomel and oil prescribed, hoping it might not be typhoid. July 22nd, temperature 104.4, Widal positive. Alkaline treatment begun. Temperature gradually fell to normal on 30th.

3. W. L.—While away from home had drunk some suspicious water; and, for a few days after his return, felt listless and feverish. On the night of June 21st, he was taken with headache, general pain, vomiting, and abdominal tenderness. Next day Widal shown positive, though negative three days before. Alkaline treatment promptly pushed. June 24th temperature a. m. 99.8; June 27th, Widal negative.

4. Miss L. N.—had spent a few days in a suspicious locality. On return, June 30th, she went to bed with headache, general pain, nausea and slight rise of temperature. Positive Widal led to immediate treatment. July 3rd, Widal doubtful; July 5th, Widal negative. Treatment dropped.

In neither 3 nor 4, was the temperature higher than 101.

5. Mary A—after being sick several days, sent for physician July 9th. Usual catalog of typhoid symptoms was found. Temperature 104. Widal and Diazo tests positive. July 15th, temperature 100. Patient dismissed physician and got up in a few days.

6. Cecil K—had presented such typhoid symptoms that baths had been used for two days; when July 19th, blood was tested and showed positive. Alkaline treatment was continued three days, and case dismissed.

7. Sidney W—had been sick a few days, when first seen July 23rd. He showed typhoid tongue, abdominal tenderness, joint pains, temperature 102.9, Widal reaction positive. Dismissed, July 26th, with normal temperature and Widal reaction no longer positive.

8. Name not given. Clear typhoid symptoms and Widal reaction July 26th. Dismissed July 31st.

9. Walter T—had been moping and feverish a week, under domestic remedies. First seen Aug. 5. Tenderness right iliac region, slight tympany, tongue fairly clear, but unsteady and red edged; temperature 101.2-104.2, Widal reaction positive, urine quite acid. Aug. 8th, slight perspiration, temperature 99-101, urine barely alkaline. August 10th, temperature normal—99; urine clearly alkaline; abdomen relaxed, no tenderness; medicine gradually reduced to Aug. 15th. Widal negative, Aug. 18th.

10. Eva T—sister of last, had been uncomfortable and feverish for three or four days, and had taken calomel and oil two days before seen Aug. 13th. At this time, temperature 101, Widal positive; tremulous tongue with red edges; slight iliac tenderness; urine barely acid. Aug. 16th, temperature normal; urine barely alkaline; medicine decreased. Aug. 18th, temperature still normal; urine clearly alkaline; Widal negative. Dismissed.

11. Walter T.—Typical symptoms and prodromata. August 9th, temperature 101, Widal positive. Urine was alkaline; accordingly we proposed to try half our usual dose. But on the 11th, temperature p. m. 104 led us to adopt full dose. Accordingly, on 12th, temperature 103.2; on 13th, 102; continuous drop until normal, August 20th.

12. Bertha M.—Seen first Aug. 21st. General pains, diarrhea, vomiting, coated, red-edged tongue; Widal positive; tem-

perature 105, morning and evening. Temperature gradually fell; on 25th, 102, with slight perspiration; on 31st, normal.

13. This is last, because of interesting features.

Parnese B—came under notice July 31st. Had been ill for a week, and had taken some pills. Found with pronounced typhoid symptoms, temperature 105. Calomel and oil given. Aug. 1st, temperature 103; Widal and Diazo re action positive. Aug. 2d, temperature 104.8 alkaline treatment begun. August 4th, temperature 104-103.6. Diarrhea gone. Aug 5th, temp 103.5-103. Very restless Aug. 6th, temperature 102-103 listless, almost deaf, defecation involuntary. The symptoms suggested uræmia, according to urinalysis of Aug. 2nd, at which time there was much albumen, a little kidney epithelium, and a few casts, Hyaline and epithelial. Fearing the effect of so much alkali, it was discontinued. For three days, she was unconscious and very restless; temperature in axilla 102.4 103.5.

Since discarding the alkali seemed to be no advantage, Aug. 10th, it was renewed in extremely large doses, chiefly by enema. Temp. 103-104.4. Aug. 11th, temperature, by mouth 102.2-102. Aug. 11, temperature 101.4-102. Aug. 13th, temperature 99.5-102.6. She died 9:30 p. m.

Urinalysis Aug. 11th. Acidity diminished. Albumen abundant. Indican a great deal. Renal epithelium in large quantity. Casts without number; dense hyaline, epithelial, coarse granular. Many bacteria resembling B. Typhus, but not agglutinating with Typhoid serum. Diazo negative.

Urinalysis Aug. 13th. Casts, renal epithelium and albumen as before. Indican normal. Diazo negative. Bacteria not agglutinating with Typhoid serum.

THE TREATMENT OF ECLAMPSIA BY CEASAREAN SECTION.

BY D. L. MAGUIRE, Charleston, S. C.

The subject of Puerperal Eclampsia is very interesting from many viewpoints.

* Read before the July meeting Medical Society of South Carolint.

The various theories in regard to the etiology as well as the varied Symtomatology might be discussed with benefit, but I propose to investigate only the treatment, which I believe after all is the most

important part of the subject.

When we consider that in this condition the mortality of the mother ranges from 20 per cent to 30 per cent (some observers placing it even as high as 50 per cent, and the mortality of the foetus from 50 per cent to 60 per cent, we can readily see that it is one of the most fatal of obstetrical complications and one that demands our earnest attention. And indeed to my mind this frightful mortality has been due in no small measure to the unfortunate delay caused by dallying with internal medication. I believe that the day when we employed Catharsis, diaphoresis, diuresis and veratrum viride on an Eclamptic patient is passed or should be past. When a woman has had even her first convulsion, then is the time for drugs past, and no expectant treatment should be considered.

The first convulsion should be the signal for us to empty the uterus and do so just as quickly as possible. And this mode of treatment is by no means rash or bold when we consider the generally accepted theory of the etiology of Eclampsia—Foetal Metabolism. Surely if we believe that this condition is caused by a toxemia originating from the foetus in utero, then we must remove the source, which of course is the foetus, if we would cut off further supply. It seems to me absolute folly to sweat and purge a patient and at the time allow the source of the trouble, still continuing to generate the poison for the mother, to remain undisturbed. So that I am of the opinion that the expectant plan of treatment in true Eclampsia should be entirely abandoned, and that this condition should be met in the first place by the rapid emptying of the uterus. Nor am I alone in my judgment. Edgar says that careful observations seem to show that danger is essentially passed in about 90 per cent of cases, immediately after the uterus has been emptied, if this is accomplished early in the seizure. Again as far back as September 1896, the International Congress at Genoa, decided that according to the best authorities the uterus should be emptied as quickly as possible after the onset of Eclampsia.

Believing then that the rational treatment of Eclampsia is to deliver the pa-

tient at once, it is my purpose now to investigate the respective merits of high forceps and Caesarian section as the operations most frequently employed in accomplishing rapid delivery. And in reaching correct conclusions we must take into consideration the mortality and morbidity of both the mother and child. Heretofore entirely too little attention has been paid to the life of the child and too little attention to the morbidity of both the mother and child. This is a question not only of motherless children but a question also of the invalid mothers and idiot children. We should not be satisfied that the mother has survived the labor; nor should we congratulate ourselves that the babe as well as the mother is alive. We should endeavor to conduct the labor so that neither shall be harmed thereby. We needs must employ that method of delivery which is safest for both mother and child, as well as the one which offers the least likelihood of maternal or foetal morbidity.

Perhaps high application of forceps has been used oftener in Puerperal Eclampsia than in any other obstetrical complication, and with very good results so far as maternal mortality is concerned. And to my mind this operation has maintained its stand because all along we have been satisfied with having gotten the mother through the labor safely—forgetting entirely the large foetal mortality or morbidity and the subsequent maternal morbidity. As regards the injuries of the mother, we must remember that lacerations of considerable extent may occur in the cervix with more or less hemorrhage. Again a portion of the cervix may be grasped in the forceps and torn off during extraction. The vagina too is very likely to be severely injured. The posterior fornix may be perforated and various lacerations often follow the use of forceps. The perniaeum is frequently torn and gives rise to so many troubles in later life. Acquired stricture of the vagina may follow forceps injuries. The high forceps operations may occasion perineal paralysis through compression of the lumbo-sacral nerve as it crosses the pelvic brim; and among injuries to the bony pelvis which thus originate, may be mentioned—dislo-

cation of the coccyx, rupture of the symphysis and loosening of the sacro-iliac synchondroses. Finally, we must remember that there is much antony of the uterus after Forceps delivery, with great likelihood of hemorrhage.

So that we can readily understand that the operation of High Forceps is not without serious maternal morbidity and the dangers which I have mentioned are by no means rare but occur very often. Then too in regard to the foetal injuries may be mentioned—Asphyxia, caused by pressure of the blades; Apoplexy with its train of birth palsies; Injuries of nerve trunks, causing especially facial paralysis; and depressions and fractures of the cranial bones.

Dr. Miles F. Porter, of Fort Wayne, Ind., in his study of a large number of High Forceps operations gives the maternal mortality as 1.14 per cent and the foetal mortality as 17 per cent. While from the same cases he gives a serious maternal morbidity of forty-two per cent and a serious foetal morbidity of 12 per cent.

And now I come to the discussion of Cæsarean Section as the operation of choice in Puerperal Eclampsia. The time was when Cæsarean Section was performed only on dead or dying women in order to save the child but no one dared extract the child of a woman in good condition by abdominal section until about 30 years ago. From 1876 to 1880 the operation fell into disrepute on account of its being improperly performed and so causing a high mortality. Today, however, Cæsarean Section is an important obstetrical operation and is being performed more and more by the best obstetricians and gynecologists in the treatment of Eclampsia; and I propose to show why High Forceps is gradually giving way to Cæsarean Section.

A very important factor, I think, in the treatment of Eclampsia is the time consumed in emptying the uterus. This is emphasized not only on account of the fact that the longer the delay the more poison is thrown out into the maternal system but also on account of the shock of the operation. In the application of High Forceps we may not only have to perform Version in some cases but in ev-

ery case, we must dilate the cervix, apply the blades and extract. The time spent in adjusting the blades to the foetal head and extraction may be considered as little, but forcible dilatation of the cervix consumes, in some cases, an hour or more. According to Edgar it requires from forty minutes to one hour and a half to completely dilate the cervix. So that on the average we are justified in saying that a High Forceps operation consumes between fifty minutes and two hours in its performance. Cæsarean Section on the other hand requires no dilation of the cervix and no adjusting of Forceps blades. All this time is saved. From the best authorities I gather that it consumes from eight to fifteen minutes to get down to the uterus and extract a child for Cæsarean Section, and the entire operation takes only about forty minutes in the hands of an ordinary operator. Hence, by the performance of Cæsarean Section there is a saving of from forty minutes to one and three quarters hours and in Eclampsia when every moment counts, when it is of the utmost importance for the mother and the foetus that delivery be performed as quickly as possible, we needs must lean towards Cæsarean Section as accomplishing this object decidedly more rapidly than high forceps.

I dare-say, however, that the strongest point in favor of Cæsarean Section and the one that impresses us most when we consider it, is the fact that the mortality and morbidity of the mother is almost nil. Unless the mother is weak and exhausted from many convulsions or infected from repeated vaginal examinations, we can almost always offer a favorable prognosis. If the woman is operated on early, which I have tried to show is always indicated in Eclampsia, before she is exhausted and before infection has occurred per vaginam, then the danger is not any greater than in an ordinary laparotomy. In the morbidity following Cæsarean Section may be mentioned, Adhesions to the Anterior Abdominal wall and Hernia, both of which are un-important.

So far as concerns adhesions it may be said that because of the size of the uterus immediately following delivery,

they are more likely to form between this organ and the abdominal wall after Cæsarean Section than after any other operation save Ventro-suspension or Ventrofixation, but that troublesome adhesions are likely to form, there is no reason to believe.

In regard to the danger of Hernia I will say that from what I have collected from the accumulated experience of competent operators the danger is small.

Dr. Miles F. Porter, whom I have quoted above, in his large series of cases, gives in Cæsarean Section a maternal mortality of 1.58 per cent as compared with a maternal mortality of 1.14 per cent for high forceps. He also gives in Cæsarean Section a maternal Morbidity of 13 per cent as compared with a maternal morbidity of 42 per cent. in high forceps. This same observer states that the foetal mortality and morbidity in Cæsarean Section is practically nil, while in high forceps the mortality is 17 per cent and the morbidity of the foetus, which in many cases is worse than death, is 12 per cent.

Now it is by no means difficult to understand that these figures are decidedly in favor of Cæsarean Section. Whereas the mortality of the mother, may be slightly lessened by high forceps, her future welfare and usefulness as well as the life and usefulness of the child is distinctly improved by Cæsarean Section. And indeed every day the maternal mortality by section is being lessened because we are operating early before shock or infection has occurred.

Perhaps I can do no better than quote briefly the opinions of some of our most prominent obstetricians and gynecologists on this subject:

The Mayos say that Caesarean Section done under favorable circumstances by competent operators should give practically no mortality nor morbidity.

Hirst says: "As between High forceps and version in Primiparæ and Cæsarean Section, the expert abdominal surgeon would get the best results with the last even though he were also an expert in the other operation."

Newell, of Boston says: "In the first place the elective operation (Cæsarean Section) done before labor, in the ab-

sence of complicating disease, with the patient in good condition is, in competent hands, A Safe Surgical Procedure, and I believe the morbidity in these cases is very slight and certainly very much less than could be claimed for the ordinary obstetrical operation in the same class."

Dr. Lee thinks that Cæsarean Section ought to have a wider field and should replace many of the brutal forceps and version operations."

In his last edition of the "Practice of Obstetrics," Edgar speaks as follows: "The prognosis in Cæsarean Section is yearly improving. I am unable however, to give statistics that will cover all the different varieties of cases. We can state however, that when the environment is favorable, when conveniences and competent assistants are at hand, when the mother is in good condition and has not been infected by repeated examinations and unsuccessful attempts at delivery, and when the foetus is still strong and healthy in the uterus, the danger of Cæsarean Section to the mother is almost nil and we can assure the patient and her family that the child will almost certainly survive."

Dr. John O. Polac in the "American Journal of Obstetrics" of February 1908, in a series of eleven cases, shows that the trend of modern Cæsarean Section is to almost perfect results in early cases. He shows also that it is taking the place of Symphysiotomy or Pubiotomy, high forceps and version, and is being accepted more and more as the treatment of Placenta Previa and Eclampsia.

"Such results as those recorded by Reynolds of cases of Cæsarean Section known to him personally in which there were thirty recoveries in thirty cases, must encourage us to perform this operation more frequently than we have been accustomed to do in the past."

"Again Zweifel has had seventy-six consecutive Cæsarean Sections with one death. The patient that died was septic when operated upon and therefore should be excluded in estimating the mortality of Cæsarean Section. Hence in Zweifel's hands the operation has been without mortality."

In this paper I have endeavored to

show that Eclampsia is a condition demanding rapid extraction of the child, that Cæsarean Section accomplishes this more quickly than forceps, that the mortality and morbidity of the child is distinctly lessened by Cæsarean Section being reduced almost to zero, that injuries to the mother is considerably diminished by this opera-

tion, and that Cæsarean Section is being employed to-day by the best Obstetricans and Gynecologists in place of forceps.

Its simplicity of technique together with its absence of brutality; its directness of attack together with the smoothness of convalescence and its constant Bettering Statistics all commend it as one of our most satisfactory operations in Obstetrics.

NEPHRITIS.

BY WM. L. KNEESE, M. D., Lexington, S. C.

In offering a short essay on the subject of Nephritis I do not expect to tell the members of this society anything with which they are not already familiar but hope to direct attention to some things that are so well known that we are often guilty of overlooking their importance.

Acute nephritis is defined as an acute inflammation of the kidneys, either of a mild, severe or grave character. The terms Brights disease, Nephritis and even albuminuria are not uncommonly employed synonymously. It appears almost trite to correct this popular misconception by the statement that Brights disease is a systemic disorder that usually, but by no means invariably, produces Nephritis; that Nephritis is often due to Brights disease, but may also be due to a great number of other causes; and that albuminuria is a common but not a constant symptom of any form of Nephritis.

The Cardinal symptoms of Brights disease are in the order of their frequency and sequence: (1) Cardiovascular; (2) Nephritic; (3) Cerebral; (4) retinal.

The Cardiovascular changes must appear first. The intoxication of the heart and arteries, with the resulting high blood pressure, leads to nutritional disorders in different parts of the body; it is not surprising to find that particularly those organs that are supplied by end arteries are chiefly involved, for in them vascular disturbances must first produce

nutritional derangements, chief among the organs supplied by end arteries are precisely the kidneys, the retina and the brain, and I think this explains the frequent involvement of the kidneys, eyes and brain in Brights disease. The fact that the retina and the brain are often found injured before the kidneys, that cases of Brights disease run their fatal course occasionally with practically no renal changes, but with serious apopleciform brain lesions and retinitis, leaves out this conception and constitutes a valid argument against the common belief that the Nephritis is the primary event and the determining phenomina of the disease.

As to the causes—I am an ardent convert to the belief that Brights disease is produced by circulating toxins, of the exact chemical character of these poisons we know but little. Their presence however is clinically revealed to us by their manifestations. There seems little doubt from the experimental evidence at our disposal that some of them are products of metabolism that have escaped oxidation. The source of these bodies is two fold, namely, the gastrointestinal

tract and the proper tissues of the body. There is no more prolific source of poisons than a disordered bowel. Digestive disorders not only directly lead to the formation in the intestines and the absorption into the blood and tissue juices of a mass of abnormal and highly toxic degradation products of the albuminous fats etc., of the blood, but they also indirectly lead to hepatic insufficiency, a disorder that is instrumental in causing a flood of poison to circulate through the

* Read before the Lexington Medical Society, July 19, 1909.

organism and unless rapidly eliminated through the kidneys produce a chronic autointoxication.

TREATMENT.

Based on the above conception of the gastroenteric and by implication of hepatic origin of many cases of Bright's disease an intelligent prophylaxis and a conservative treatment of early stages of the disease should be directed towards the causative of the disorders in the bowels and liver. I am a firm believer in the digestive origin of most cases of Bright's disease and I believe that in numerous cases early attention to the digestive tract will check the progress of the disease and not infrequently produce a restitution to normal even when the heart is considerably hypertrophied and when the kidneys are already showing evidence of Nephritis. The general treatment might be summed us as follows the use of a liberal diet and the restriction of liquids. In feeding any case of Nephritis two fundamental axioms should be followed (1) to give the diet that is least irritating to the kidneys (2) to adequately nourish the patient.

To follow the first rule we place the kidneys relatively speaking at rest. We spare the diseased organs.

By following the second rule we bestow upon the organism as a whole sufficient strength to combat the disease process. In all acute forms of Nephritis that runs a short course the sparing of the kidney is the most important task. It is a common practice to give much water in all forms of Nephritis.

Witness the many waters on the market that are sold as "cure" for Bright's

disease, etc., the object being presumably to "flush out the kidneys." The first thing the kidneys stop eliminating when they become diseased is water; hence water in this stage passes the kidney with difficulty and to attempt to force it through is to irritate the kidneys when they should be kept at rest.

That water is irritating to the kidneys when they are diseased is manifested by the good effects exercised in many cases of Nephritis by sweating. The chief advantage therefore of sweating seems to be to rid the organism of the water that the kidneys cannot properly eliminate. The common habit therefore of sweating a patient on the one hand and giving him abundant water, on the other, is irrational for to do this is to neutralize the good effect of the sweating to irritate the kidneys and overtax the heart and arteries.

The management of Bright's disease may fitly, therefore, be discussed under these several heads first prophylactic and causal directed against the perversion of the digestive and hepatic functions.

Second, symptomatic, directed primarily against the development of cardiovascular changes; secondarily against the results of Nephritic changes. The symptomatic treatment of the common cerebral and retinal changes is synonymous with the treatment of the heart and arteries.

Third, treatment of the patient as a whole; this is of paramount importance, particularly as regards the maintenance of general nutrition by adequate, if necessary regulated feeding, and as regards the prevention of nervousness and of those great perverters of all functions viz; depression, fear and worry.

NOTES ON THE PROGNOSIS AND TREATMENT OF PELLAGRA

By C. H. LAVINDER, Passed Asst. Surgeon, U. S. Public Health and Marine-Hospital Service

In undertaking any discussion of the prognosis of pellagra as seen in the United States there are at least two factors which must not be overlooked. The first is that our comparatively brief experience with the disease in this country would make us guarded in our statements, and the other is that a large part of our published experience is based on

asylum cases of the disease, which are usually regarded as the most hopeless.

Generally speaking, it may, I think be safely said that in this country at least the prognosis in all cases is grave as to final and complete recovery. The statistics in existence, all founded on asylum cases, and not a very large number at that, will give an average case mortality of about 67 per cent., a state of affairs which, to say the least, is not conducive

to optimism.

All American physicians who have had experience seem to regard the outlook in individual cases as one of great gravity.

T. C. Allbutt (Allbutt's System of Medicine, Vol. II, 1897) says: "When the disease has recurred for three or four seasons, and especially if the mind be affected the prognosis is very bad. I gathered from the physicians of Italian lunatic asylums that recovery of patients once arrived at the asylum stage of insanity is almost unknown. Still these are extreme cases; the mentally afflicted in their earlier phases may recover only too often, however, the advance of death is inexorable." And this, I think, expresses very fairly the view generally entertained in the United States.

This view, however, may be unduly pessimistic. Lombroso states (*Trattato profilattico e clinico della pellagra*, Turin 1892) that in 1883 there were treated in 866 Italian civil hospitals 6,025 pellagrins, of whom 923 died; in 1884 there were treated in 993 hospitals 6,944, of whom 780 died, thus giving, on a large experience, an average case of mortality very close to 13 per cent. Wollenberg reports from credible sources a total of 55,029 cases of pellagra in Italy in 1905, with a total mortality of 2,359, which is a little over 4 per cent.

Babes and Sion (*Spec. Path. u Therap.* Nothnagel Band, XXIV), in dealing with nonasylum cases, state that with proper treatment complete cure of psychic as well as motor changes may result. They also state that the disease can be strikingly improved or cured not only in early but in more advanced cases though the prognosis is far better in early cases.

It is probably safe to assert that as a rule the earlier the diagnosis is made and treatment begun the better the prognosis. The diagnostician then should learn to profit by a similar experience in tuberculosis in which the situation is in some respects analogous.

Pellagra, like tuberculosis, is a very chronic condition with, in nonasylum cases, perhaps just as hopeful an outlook. We should profit by experience, learn to make diagnosis, and institute proper treatment in the early stages of the disease and hopefully counsel our pellagra

patients as we do our tubercle cases. Pellagra is said in Italy to last as long as twenty-five years and Babcock in South Carolina has seen cases of eight or twelve years' standing who were still in very good physical condition and showed improvement under treatment, if not recovery. It is true, however, that pellagra is variable in its manifestations and acute accidents and grave complications are frequent.

The chronic type of the disease, without mental involvement, gives the most hopeful outlook. Acute manifestations must be viewed with the utmost gravity.

Pellagra is a disease of little fever, and it is, I think, the general opinion that fever, particularly if high or constant, must be regarded as a danger signal. The state of the erythema is generally thought to bear no relation to the gravity of the constitutional disturbances. It has been my experience, however, that moist, extensive erythemas are frequently accompanied by grave constitutional changes. Mental involvement, as stated, adds to the seriousness of the case; such nervousness of the case; and such nervous disturbance as subsultus, marked tremor, retraction of the head, can, as in other affections, be interpreted, as an index of severe intoxication. In mental cases periods of excitement are not rare, and they do much to help exhaust the patient. Severe recrudescence of the acute phenomena sometimes occur during the same season after the patient seemed to be on the road to recovery. Steadily progressing emaciation, especially if accompanied by an inveterate diarrhea, which is usual, very often ends fatally.

Certain complications are of great importance in prognosis, e. g., malaria, intestinal parasites, marked nephritis, acute bronchitis, pneumonia, decubitus gangrene (which is often difficult to avoid), possibly tubercle, and at times hyperpyrexia, due probably to a sudden overwhelming dose of toxic material. Then of course, if a patient is carried through his summer manifestations safely one year, a reappearance of acute manifestations the next year must be watched for more especially if anything should intervene to lower the general resistance, such as acute illness, childbirth, etc.

PROPHYLAXIS.

In any discussion of treatment we must first of course recognize the paramount importance of prophylaxis. Whatever views one may entertain as to the cause of the disease there seems to be an almost universal belief that there is some definite etiological relation between Indian corn and pellagra. In dealing with a disease of such gravity, a belief so universal as this cannot be discarded except in the face of conclusive proof to the contrary. There are also the best of reasons for thinking that poverty, especially abject poverty, and all that is implied in that term—poor and insufficient food, bad housing, unhygienic surroundings, mental depression, lowered physical resistance, and often alcoholism—have a greater effect than usual in predisposing to pellagra; and predisposition in this disease is generally admitted to be a factor of the greatest importance.

What shall be done there in the way of prophylactic measures? It is evident of course that as far as possible distress, poverty, and unhygienic surroundings should be relieved, alcohol interdicted, and the individual, as well as the community, placed under the best possible circumstances. This is nothing new of course and will receive the assent of all, but in Italy such unique attempts at general preventive measures have been adopted along this line as to give this statement a new meaning. Various establishments for the prophylaxis of the disease have been originated and are said to have been of aid in the production of hopeful results, such as the *pellagrosari, forni economici, forni rurali, cucine, economiche, locande sanitarie*, all of which are devoted to feeding, treating and educating the unfortunate sufferers.

So far as a dietary containing corn is concerned, there is abundant evidence that good corn is not only a wholesome but a harmless food, and not a few writers have pointed out the folly of those who counsel the total rejection of so valuable a cereal. At the same time, entirely wholesome corn is not always easily differentiated from harmful corn. In the light of our present knowledge, therefore, maize should be admitted, it seems to

me, into the dietary of certain institutions, like insane asylums, with the utmost caution. As for the use of corn or its products elsewhere or in one's individual diet, that is a matter which is as yet, to some extent, *sub judice*, and must for the time perhaps be left to individual judgment.

TREATMENT.

Regarding the medical treatment of the disease, Sir Henry Holland wrote, in 1817 (*Medico-Chirurgical Transactions*, London, 1820): "In short, it appears certain that mere medicine has done very little for the relief of pellagra; and Strambio, a man with large experience in asylums, frankly confesses that he never saw a case distinctly cured by the remedies that were employed."

Certainly we must admit, at the outset, that we have no specific for the disease; but since Holland's time Lombroso's magnificent work on pellagra has been done, and while by some he may be considered as too optimistic on treatment, his enormous experience certainly entitles his views to the greatest attention and respect. He says, after discussing the use of arsenic in the treatment of pellagra, that the therapy, which was at first desperate and could not be summed up in baths barren of result, can now be undertaken more confidently and rationally, as the treatment of a chronic intoxication analogous to alcoholism or morphinism and curable by antidotes when the use of the toxic material has been suspended. (The antidotes referred to are arsenic and chloride of soda, concerning which more has been said elsewhere.)

Lombroso's teaching on therapy has had such a profound effect that it may be wise to give briefly some accounts of his views.

He recommends as a rule a liberal diet including meats especially, but points out that this alone is insufficient. He also remarks that in well-nourished pellagrins this is of course not so much indicated, and adds that such cases are rebellious to treatment. He speaks of baths and cold douches, which he thinks benefit especially paretic states, the skin manifestations and the painful burning sensations so common in pellagrins; and fur-

ther says that, while they do not cure, they, at least prolong existence or render it more tolerable. In some patients, however, there is a true aversion to bath, and in such they should not be tried.

Of drugs in a general way he condemns the use of iron. In some cases, especially in the young and those with arrested development, he states that he has obtained magnificent results with simple salt rubs or frictions. He has experimented extensively with acetate of lead, but finds it of little use except in pellagra of the aged, in those who suffer acute articular pain, in cases of incipient paresis, and in cases of general tremor. The dosage used was 0.01 to 0.05 gram in 300 c. c. of water. In typhoid pellagra he tried numerous remedies without avail.

Finally in his search of a remedy (through some reports of Coletti and Perugini) he got the idea of using arsenic and he says after experience with the drug, that the result exceeded by far, his expectations. He does not seem to regard arsenic as a true specific for pellagra and admits that it does not cure all cases, but he thinks it is a very valuable remedy, and that it acts in a certain sense as an antidote for the toxines of spoiled maize, to which he attributes the disease. As an antidote he compares it to the action of opium in alcoholism and mercury and the iodides in syphilis. Sodium chloride he seems to think has probably an equally powerful effect, but a very much more restricted field.

He uses arsenic in the form of Fowler's solution in dosage of 5, 10, 15, 20, and 30 drops, or in the form of pure arsénous acid (arsenic trioxide) dissolved in slightly alcoholized water, in doses of one-fortieth to one-twentieth milligram, increasing, according to tolerance, up to 0.001, 0.002, or 0.003 grams and very rarely even to 0.01 grams. The administration of the drug is suspended for a few days from time to time. He cautions against certain dangers in its use, however, and mentions as dangerous symptoms the appearance around the neck of an herpetic eruption, profuse salivation, anorexia, vomiting, diarrhea, palpitation of the heart, syncope, burn-

ing in pharynx and stomach, headache, great muscular weakness, and bronchitis.

He thinks certain types are especially helped by the administration of arsenic, and that certain others receive no benefit, as follows:

Benefited.—Cases with marked marasmus; cases with incipient paresis; cases with sitophobia (gastralgic type), cases with vague mania but not systematized delirium; cases in the aged, if not at the verge of decrepitude.

Not benefited.—Cases in the young and in infants; cases well nourished and robust; cases with systematized delirium; cases with mental alienation of twenty to thirty years' duration; cases having lobar pneumonia, tuberculosis, albuminuria, or severe vertigo.

In cases of grave vertigo he sometimes uses the tincture of coccus orientalis in doses of 3 to 5 drops daily, progressing slowly to 30 drops a day. Among systematic remedies he uses opium in certain mental states and calomel and bismuth for the diarrhea.

Rest is of course very important in acute manifestations, especially if accompanied by fever. The diet should be highly nutritious and abundant, including meats. If diarrhea is too free and the stools contain undigested material, it must be regulated accordingly. The diarrhea, however, is probably trophic and not inflammatory in nature, so that food is not contraindicated, as in many intestinal disturbances, and the patient needs all the nourishment possible. A change of climate, if possible, may be very advisable, especially to colder latitudes. Hydrotherapy is undoubtedly a valuable aid. Saline infusions may at times be of service. During the warm season avoidance of the sun's direct rays may prevent a bad erythema. Cleanliness and good nursing are of course to be desired.

Symptomatic remedies must be used as needed. For insomnia some of the well-known hypnotics; for the erythema, if dry, oily applications or possibly tincture of iodine; if moist, a dressing of 1 per cent aqueous solution of picric acid is valuable at times, or other similar applications may be tried. Diarrhea must be met with the usual remedies; salicy-

late of bismuth has been highly recommended, and opium may prove of value. Pain, which is fortunately not very common, or severe, may at times require morphine.

Complications, such as malaria, syphilis, and intestinal parasites should receive prompt attention with appropriate remedies. If much anemia be present, many good observers think a bland preparation of iron is indicated. Mercury, except in cases complicated by syphilis, seems valueless. Following Wright's work on the succinamide of mercury in tuberculosis, Babcock and I tried this remedy in several cases, but achieved no results except in syphilitic cases. The drug proved quite irritating locally.

Use of the newer arsenical compounds.—The more or less recent introduction of certain new arsenical compounds seemed in the light of Lombroso's work, to offer a better therapy for pellagra. Atoxyl, first used, I think, by Babes, has been given a trial by several and with very discordant reports as to results. Of these preparations atoxyl and soamin are the only ones which have been used, so far as I am aware. Arsacetin is another important member of this group.

A few words on these drugs and their method of use may not be inappropriate. Atoxyl and soamin are both trade names and are forms of sodium arsanilate, containing, respectively, about 26 per cent. and 22 per cent. of arsenic. They are sold in the form of the salt itself and in the form of hypodermic tablets.

Sodium arsanilate is prepared by condensing aniline and arsenic acid, eliminating water and isolating the arsanilic acids. The sodium salt is prepared by the usual methods.

It occurs as white, colorless crystals soluble in 5 or 6 quarts of water and more soluble in warm water.

Action.—The arsenic of the arsanilic acid is liberated very slowly in the system, thus producing the ordinary therapeutic effects of arsenic with the advantage of a more continuous and less toxic action and less irritation. Toxic effects from excessive doses have been frequently noted although the toxicity is stated to be about one-fortieth of that of arsenic trioxide. The use in large doses has

occasionally resulted in blindness from degeneration of the optic nerve.

Dose.—0.02 to 0.2 grains (1-3 to 3 grains) hypodermically, every other day, gradually increasing if necessary until the single dose reaches 0.65 grams (10 grains) and until a total of 6.5 grams (100 grains) have been given. The drug should not be given by mouth, as it is decomposed by the acid of the stomach and toxic symptoms may result.

Arsacetin is sodium acetyl arsanilate. Its action is the same as sodium arsanilate. It is much more soluble and withstands heating so that its solutions may be sterilized. The dose is, hypodermically, 0.1 gram (1 1-2 grains) to 0.5 gram (7 1-2 grains), internally 0.05 gram (3-4 grain) three or four times daily. If energetic action is required, two injections a week of 0.6 gram (9 grain) each, given on successive days, should be continued till 20 injections have been given. (This brief account of these remedies is abstracted from Jour. Am. Med. Assn. LII, No. 26, p. 2106.)

Koch in his extensive experience with taxyl in typanosomiasis, after getting several cases of blindness—concluded that the safest and most efficient dosage hypodermically was 0.5 gram on each of two succeeding days, and with intervals of ten days between; this double treatment is repeated for many months. By mouth Koch found that a dose of 0.5 gram is insufficient, while larger doses produced toxic symptoms, and he had no success with the drug given in this way. (Terry, Arch. Int. Med. III, 2.)

About two years ago Babes reported his experience with atoxyl in Roumania, and spoke very highly of the use of it in pellagra. Warnock, of the insane asylum at Cairo, Egypt, in his report for 1907, being somewhat enthusiastic over the Roumanian report, gave the remedy a trial, and was much pleased with his early results. In his report for 1908, however, his conclusion is, "It may be said that the value of atoxyl in the treatment of advanced stages of pellagra such as are met with in this asylum has not been demonstrated," and he adds that he can not confirm the Roumanian experience with the drug.

Babcock, at the State Insane Asylum, at Columbia, S. C., who has used both atoxyl and soamin extensively, has stated in a recent unpublished paper that he has not observed any permanent benefit from treatment by either of these preparations. He thinks, however, Fowler's solution is a remedy of importance, especially in non-asylum cases, and advocates, in selected cases, a further trial of atoxyl and soamin.

Babcock uses atoxyl and soamin almost exclusively by the intra-muscular method. They have not proved irritating when sterile solutions were used and anti-septic precautions observed. The usual dosage is from about 0.2 to 0.5 gram every other day for two or three doses, and then a rest for about ten days.

Wood, of Wilmington, N.C. (Char. Med. Journal, LX, 2), speaks disparagingly of atoxyl in his experience.

In my own experience, atoxyl and soamin have proved of little value, but I am as yet not willing to discard them as entirely useless. Fowler's solution seems beneficial in some cases. Donovan's solution has been tried also, but I have had no experience with it myself.

Quite recently Babes, with others, has advocated the use of atoxyl and arsenic trioxide combined (Berl. Klin. Wochenschrift, Feb. 8, 1909), and they report brilliant results. The method is as follows: Atoxyl, 0.5 gram hypodermically, externally on the sound skin, 5 grams of an ointment of arsenic trioxide (1 to 50), and internally a pill of arsenic trioxide (0.001 to 0.002 gram) thrice daily. I have seen this treatment given a limited trial at Columbia, S. C., without any benefit.

Serum treatment and transfusion of blood.—A word or so on serum treatment and transfusion of blood. There

is a good deal of evidence tending to show that specific antibodies are developed in the blood of pellagrins, and the serum of cured cases has been successfully used in the treatment of typhoid pellagra (Antonini and Miriani—Contributo allo studio della sieroterapia nella pellagra, Bergamo, 1904). Babes and Sion (loc. cit.) have even expressed the confident hope of producing from the horse an efficient antiserum, but this has not yet been realized.

Working at the insane asylum at Columbia I have attempted to treat two cases with blood serum taken from cured pellagrins. One case died of pneumonia soon after treatment was begun, the other seemed to improve for a while, but is now much emaciated and is not expected to recover. I could not secure properly cured cases for obtaining the serum, and this may account to some extent for so poor a result.

Cole, of Mobile (So. Med. Jour., Apr. 1909, 631-638), reports a case cured by transfusion of blood from a cured pellagrin (after Crile's method). He has recently tried this in other cases and reports good results. It seems to me possible that the blood from any healthy individual might have a similar beneficial result.

Finally, it may be said that we have no specific for the disease, and that the remedies used have often proved disappointing; but a cheerful optimism, with the judicious use of the means at our command, will at times produce surprisingly good results and is certainly far preferable to inert pessimism.

Before concluding, I desire especially to express my indebtedness to Dr. J. W. Babcock, whose wide clinical experience with pellagra has rendered his information and advice of great value.

SOME OF THE FUNCTIONAL NEUROSES WITH REPORT OF CASE OF HYSTERICAL AMAUROSIS.

BY L. C. SHECUT, M. D., Orangeburg, S. C.

Some of my patients let me come and

*Read at the June meeting of the Orangeburg County Medical Society.

go and have consideration enough not to ask me for a diagnosis. To some of these I am very grateful. Some ask me

their trouble, when I am satisfied I know, but for good and recognized reasons I will not tell them. Some of these I think, should be grateful to me. These some ask me the matter when I think I know but I often hesitate to say. To this last group belong those suffering from that abnormal condition of the nervous system which I have chosen as the subject of this report, viz: Hysteria.

The impression instilled into my mind regarding "Hysterics" when I belonged to the laity made me a very unsympathetic observer of its various manifestations. I then thought it was a weapon possessed by women only and to be used in her own characteristic way, when her other arts had failed. When my medical teaching began to dispel my ignorance, a new light broke in on Hysteria for me, and I began to see more clearly the great injustice done these victims of morbid changes in the functions of the body, brought about in a great majority of cases by factors for which they are not responsible, viz: Heredity and Education with environment as the exciting cause. Hysteria is the sin of the fathers and mothers that goes down the generations and stops only when there is not enough healthy vitality left to regenerate, which, the sooner it happens, the more fortunate the community.

How many neurotic invalids we know to-day living a life of mental torment, helpless themselves and worthless to the community, begetting children with thready nerves, and then for them, under a false system of home and school education, increasing their tension until they finally break when the responsibilities of womanhood come and find her with a moral organization unfitted for its cares. And we then have another weaker link in the chain of neurotic family. But to get back to the medical part of my paper. Why do I often hesitate in a diagnosis of Hysteria? Mainly because it can simulate any known organic disease. It has been called the most protean of all diseases. It has no one symptom that can be called pathognomonic. It is recognized as a state in which ideas control the body and produce morbid changes in its functions (Mobries). Whatever the hysterical patient thinks

is the trouble is just as real to that patient as if it really did exist. They suffer pain just as acutely, they are paralyzed just as effectively, they are as deaf or as blind as they think. Haven't we often thought about Bronchial Asthma and its neurotic element, where after we had tried all recognized treatments and failed, the patient would get cured by some proprietary remedy containing the same drugs we had given, but also having all the accessories necessary for psychical effect, added to the numerous testimonials of other cured asthmatics, which gained the confidence of the patient? I have such a patient now. Suggestion has cured him so far. Suggestion cures Hysteria. Hysteria probably kept up his asthmatic attacks. And he also had me up at 1 o'clock every night until he got his patent medicine. And I have learned something else from a patent medicine. Those cases of women in robust, general health, approaching a menstrual epoch, suddenly subject to some sudden grief, shock, fear or business reversal or some family disturbance which brings on an emotional explosion of alternating crying or laughing are usually easy enough to diagnose. Among our ambulatory patients, that class of chronics, who visit first one doctor and then another, with the constant complaint of a headache, a pain in the side, a lump in the throat, a weakness in the knees, backache, palpitation, pain around the heart, heart disease, beating in head, indigestion, lump in the side, frequent or painful micturition, fluttering in the bladder, or some abnormal condition connected with the menstruation, etc., etc., ad infinitum. With this class we are apt to be misled over devious routes, looking for some local cause, before we finally recognize the neurasthema as that variety of the functional neurosis responsible for our patient. After finding this out, per force of circumstances in this part of the country, unfortunately our patient is often no better off, even if our diagnostic mind is relieved.

Of special interest are those cases of pseudocysis, usually found in women who are anxious to become pregnant, and sometimes in those who are unmarried and fear pregnancy has taken place. Re-

cently, I have had two cases of feigned pregnancy. In one, the woman had had no children by her second husband and was very anxious for offspring. She had made all preparations for the expected event and provided the infant's wardrobe. She came to me with the statement that she thought she was about entering seven months pregnant and had been feeling movement for about two months; that she had menstruated slightly for the first three months and since that time had seen nothing. She was a very stout woman with a large thick abdomen that looked to be well filled. By external palpation, she could give to the examining hand as perfect a "kick" as I have ever felt. She could control her abdominal wall so that it was impossible to tell what was under it. By bimanual examination the vagina was purplish and the uterus was high and hard to reach. I felt sure she was not seven months pregnant, but I was not so sure but that she might have a three months' gestation. So I told her I could not tell her definitely about the probable date of her confinement yet, but asked her to return in two weeks time. I was called to her home for this second examination and here she refused chloroform, which I requested her to take, but I managed to insert the whole hand in the vagina and, by diverting her attention, succeeded in getting the abdominal wall relaxed enough to shove the uterus down and feel the uterus of the normal nonpregnant size.

My other case, I was called to see at night by the husband, who came to me with the statement that his wife was in labor and had had a "show" and wished I would hurry. He had spoken to me some months previous about an examination of his wife, that she thought she was pregnant, or something was wrong, as she had missed her period. I appointed the day for the examination, but he notified me before the time that his wife said it was useless, as she knew now positively she was pregnant. On this night I got my case and went to the house and found the midwife already there. My patient had not menstruated in nine months. She said she had begun to suffer pain in the afternoon and that even-

ing began to bleed. She was another very fat woman. Lying in bed with her large abdomen prominently distended, she certainly looked pregnant. Her pains had lulled. I leisurely made myself clean, listening for some hint from her as to the stage of the game, not dreaming yet that I was lending myself to such a ludicrous procedure. I could tell nothing externally but you can imagine my surprise when I felt a small normal uterus inside. Even after this I could not rest easy until I had given her an anaesthetic, which at the same time dispelled her phantom tumor and my fears that there might be something else there outside of the uterus. The mid-wife spent the night. She was game and would not give up the hunt. I explained to the disappointed husband in my simplest language, but I don't think he ever understood.

Another class of cases which are extremely common, but have only of late been properly recognized and are now designated as Pyschasthenias, are those mental states where the patients develop the obsessions, the "mental besetments" or manias, fears etc. To this class now belongs the various phobias. I have in mind now a brilliant young man who gets on periodical sprees. He has taken the cure several times. He is a confirmed psychasthenic. He has cardio phobia. His constant dread is his heart failing. He feels his pulse night and day. Even when he is lying in bed, having his two or three weeks' spree, he wants the doctor called at all hours of the night, for his heart is failing. When he is in town, he comes daily for something for his heart, or to have his pulse felt. And at times I have found him with a very weak, rapid pulse, and again it is very irregular. But, there is not the slightest suspicion of organic disease in his heart. Still, in spite of repeated assurances to the contrary, he believes firmly he has some serious organic heart trouble. He feels the need of stimulation and resorts to alcohol for relief. His control power is gone and he suffers constant mental anguish on account of his phobia. We see numbers of these cases in women who believe they have beginning malignant disease of the uter-

us. Their subjective symptom is one of constant suffering. Nothing will relieve them outside of an operation; even if it is only the administration of an anaesthetic with a curettage, or a little scratching, and then after assurance that all the possibilities of trouble have been removed. Among the negroes these are the advanced cases of the "mental besetments," the forced agitations and manias that we often send to the asylum and in a few weeks they are normal again—at least for the time being.

Other forms of these mental manias, which we all see and which caused the laity to brand the possessors as "peculiar" or "eccentric," are the superstitions. I have had my attention called to children who could not pass a certain object, such as a chair without touching it. Or as in one, every morning before going to school she would have the habit to touch some certain object and has been known to get half way on her journey when she would remember she had failed to touch this object and immediately return to satisfy the mania. These children should be removed from school at once and the mind rested.

Some psychasthenic women have a mania for precision and make themselves and those around them very unhappy by their insistence on every little thing in the house having its precise place and always being in it. Some of these are the cases responsible for the nightly attendance at the various men's clubs.

I have recently run across a case where the patient shows another form. She has the "mental besetment" of death from a fall. She had a sister, who fell and died shortly after from apoplexy. This old lady, for she is 72 and very highly educated, has herself a weak knee from rheumatism and she is continually besieged with the premonition that if she slips and falls it will cause her death. She verily moves with fear and trembling.

Fortunately for these psychasthenics, the symptoms tend to be periodic in course. Some of the minor evidences of the pathological nervous system may be in existence constantly as long as the vitality is lowered; but, when there is from any cause a depleting drain on the ner-

vous system, the exacerbating will come and they will continue until the general health is again improved to the extent that the patient is mistress of herself.

I will not further prolong this report by going into the many other functional neuroses that we run across resulting from a sapped nerve force, but will close with the report of a very interesting case belonging to Dr. Lowman and seen in company with also Dr. M. G. Salley and Dr. Sosnowski of Charleston.

This was a case of Hysterical Anaurosis.

History of patient: female; about 35 years old; very frail build; anemic; married. Has two living children and has had several miscarriages or abortions. Mother died of tuberculosis, father living, has one sister who developed epileptoid seizures after birth of second child, but after some operation on the head was cured. Patient has incipient tuberculosis. About three years ago she had an attack of nerve exhaustion. For two winters following changed residence to Florida. About six months ago she moved to Orangeburg to escape the rigorous climate of the mountains of West Virginia, says she has had trouble with right ovary and womb for years. For years she has been subject to attacks of lapses of consciousness resembling Petit Mal. She would be in the midst of conversation when suddenly she would stop and her head would drop, or may be just a blank stare forward for a few seconds, then there would be a slight starting and the attack would be over. These would be irregular in occurrence, going at times for weeks without them and then they would begin and come frequently. Patient suffers with muscular twitching of lids occasionally. She attributed it to an injury to her eye when a child, but it is a localized neurotic spasm.

About ten weeks prior to the attack which I am reporting, in a nervous menstrual effort, accompanied with vomiting, precordial pain, and intense headache, Dr. Lowman found it necessary to administer morphia at first and later inhalations of chloroform for her relief. After this attack her eyes were somewhat affected, her vision seemingly impaired, the nervous twitching of the lids marked and

the subjective complaint of flitting scotomata. These dark cloudy patches before the eyes rapidly vanished to be quickly replaced by others, so the patient stated. All of this passed away after a few days course of Hydrocyante of Iron & Horse Nettle. Only that patient one night while at opera house had a transient attack of Hemianoia. She said that suddenly one-half of the stage disappeared from her vision and she could only by turning her head see the other half. This lasted only a few seconds.

During the last week of March patient began to menstruate very scantily for two days, followed by insomnia, vertigo, etc. Just prior to this menstrual epoch, patient had been under a nerve strain, playing the organ at a church revival. On the night of April 7th patient had an attack of unconsciousness, lasting much longer than usual, followed by intense precordial pain, again requiring morphine and anaesthetic to relieve. As is usually the case with hysterical patients, an excessive quantity of anaesthetic had to be used. This was followed by persistent vomiting which lasted 48 hours. Patient rejected everything given and vomiting at frequent intervals when nothing was offered. As the vomiting subsided, intense, agonizing pain developed at the base of skull, with a slight retraction of the head. Patient lay on her back with a thin bolster under her shoulders and neck, slightly throwing the head back, and would not permit the slightest movement of head or trunk or upper extremities without precipitating a lapse, from which the patient would come out by a tetanic drawing up of the forearms and then a shriek. Just the movement of half an inch would produce an attack. During these lapses, the pulse rate would remain unchanged, but with an appreciable lowering of tension. On account of insomnia on the night of 12th ten grains veronal was administered at 10 o'clock, under which patient slept continuously until awakened at 11 o'clock next day for feeding, at which time patient was found to be totally blind, retraction and intense pain at base of skull persisting and with frequent lapses and outcry at the end the patient passing both hands to back of neck. Pulse did not

go over 76. Temperature was normal. There was nothing abnormal in the urine. An ophthalmoscopic examination of the retina was made and nothing discovered other than a general anemia. Pupils were widely dilated and would respond to direct and indirect light, but accommodation would relax almost immediately. Shoving the head into the shoulders with any degree of pressure would produce a shriek and loss of consciousness.

To the family and friends our patient was in an extremely critical condition and we were pressed for a diagnosis. Our patient was known to be tubercular. She was known to have these attacks of petit mal. She had the characteristic clinical picture of a tumor of the brain, with her vomiting, headache and optic neuritis; this latter, which I failed to mention, was very marked. Was it possible that she had this tumor? And it has been causing her attacks of petit mal? And was it probable that this tumor was one or more tubercle? For, she already had the pulmonary involvement. The visual centre is situated in the occipital lobe and that must be the location of the tumor, if it is such, as the patient is blind. The absence of temperature would not eliminate tubercle or other tumor. The slowness of pulse is usual in any increased intracranial pressure. All of these things pressed themselves upon us for consideration also we could not treat lightly that prominent neurotic atmosphere around the patient's past history and her recent sickness. After a careful search, the Stigmata of Hysteria were found and a diagnosis of Hysterical Amaurosis made. The Weir Mitchell rest treatment and suggestion were begun. The patient stated that she believed all of her trouble sprung from her diseased womb and that if we would curette her she would get better. We encouraged this suggestion, gained the patient's confidence, put her in the hands of an intelligent trained nurse and gradually led her out of her blindness; made a pelvic examination, discovered a large myomatores uterus, which, of course, we could not handle, but scraped the cervix for its psychical effect and the patient gradually got back to her former condition. Later, we told her about the Myoma and she wants it removed.

The reflex irritation from her uterine tumor, with the inroads of tuberculosis upon an already inherited lack of nerve stability, and then the added responsibil-

ties of wife, motherhood and woman, make it no wonder to my mind that the current runs out and the lights refuse to burn, as they did in her case.

NEWS ITEMS.

DONALDS DOCTOR ENJOINED.

Interesting Hearing Held at Abbeville—Defendant Practiced Without License.

(News & Courier)

Abbeville, September 4.—To-day was the day on which J. W. Crawford, of Donalds, was ordered to show cause why he should not be enjoined from practicing medicine in this state. It will be remembered that some days ago he was indicted for practicing medicine without a license and that a few days later Judge Klugh made an order in the case of the State of South Carolina on information of the Attorney General why he should not be enjoined from practicing further in this state.

Crawford appeared to-day with his attorney, Messrs. Wm. N. Graydon and F. Barron Grier, Esq., of Greenwood, and demurred to the complaint on the ground that the acts of the general assembly constituting the state board of medical examiners was constitutionally null and void in that it violated the equality clauses of the state and federal constitutions and denied him the right to practice without due process of law. He further demurred on the ground that he was not alleged to be incompetent or unskilled in his profession, and that the bill was, therefore, without equity to support it.

He also filed his answer admitting that he is practicing medicine at Donalds, presented a diploma from the University of Tennessee and a number of certificates from physicians in Georgia and other certificates as to his attainments from citizens of Donalds. He was accompanied to Abbeville by a great number of friends from Donalds, who were much interested in his behalf.

Arguments were made by Messrs. Graydon and Grier and by Wm. P. Greene, Esq., for the state, the latter relying on the recent injunction cases, and

upon the cases of the state vs. Columbia Water, Light and Power Company. Answer was also made to the argument as to the constitutionality of the acts of 1904 and 1908.

Judge Klugh ruled that the acts were constitutional, and that the only power to say whether Crawford was qualified to practice medicine in this state was the body provided by law, and that it could not be determined by diplomas, certificates or otherwise. He said that the bill was in strict accord with the law as laid down in the case relied on and that as the wrong was one threatening the public health and the general welfare, and as it was being persistently, intentionally and flagrantly committed in defiance of the law, it was proper to enjoin it. He therefore, announced that he would sign an order to enjoin Crawford, which order will be prepared and when signed will be served on Crawford.

Crawford's attorneys will appeal to the supreme court, where the whole matter will be gone into again. In the meantime he must stand his trial next week in the Criminal Courts. A large crowd attended the trial, and it was the subject of general discussion on the streets to-day.

The decision is of especial interest to the State board, and the doctors generally.

Judgment must be used in employing the iodides to diagnose syphilis as many other conditions are improved by this treatment, notably actinomycosis, chronic rheumatoid deposits and chronic lymphadenitis.—American Journal of Surgery.

Remember that a syphilitic mucous patch comes quickly, not slowly; it is soft, not indurated; it remains but a short time, not persistently; it is preceded or followed by other mucous patches, and it is apt to be associated with other signs of syphilis.—W.—American Journal of Surgery.

DEPARTMENT

Of the Society of Medical Secretaries, South Carolina Medical Association.

DR. ALLEN J. JERVEY, Charleston, Chairman.

DR. MARY R. BAKER, Columbia, Vice-Chairman.

DR. L. ROSA H. GANTT, Spartanburg, Secretary and Treasurer.

SHOULD NOT THE RESPONSIBILITY BE SHARED.

BY EDMUND W. SIMONS, M. D.

Secretary Dorchester County Medidal Society.

Dr. Hines in his excellent article "The County Secretary and his Duties," published in the July "Journal," states that "the whole superstructure of the State and National Associations has for a foundation the county secretary. In view of this fact what a tremendous responsibility rests upon him."

Undoubtedly this conception of the position of that officer is correct to a great extent, under the present scheme of organization. It is the duty of the secretary to attend all meetings unless sick or in the midst of an obstetrical case (not waiting on two or three expected at any moment) to arrange a program as attractive as possible; to invite any "big gun" he can get hold of to attend the meeting and read a paper; to remind the councilor that he is always welcome and that it is about time for him to "drop in" and see what is going on, to urge the members appointed to read papers, to get them ready and to be on hand to read them to do everything possible to get the members to attend the meetings and take part in the discussions to keep the State Secretary promptly informed of any matters pertaining to the office, when requested to do so.

It seems to me, however, in calling attention to all these duties of the county secretary we are in danger of losing sight of the fact that the individual member has any responsibility at all.

In the county associations where the bulk of the membership practice within

the city limits or are easiy accessible, the secretary can use his 'phone and always get a large meeting, but in the counties where the membership is scattered and meetings held at different places in the county, the secretary for obvious reasons, is not able to flag at the members and induce them to "come out" it is here where the individual member should shoulder a part of the responsibility and help make the meeting attractive and profitable by his presence.

In our association which meets once a month, in one of the towns of the county selected at the previous meeting, two essays are appointed to be read, one by a member selected by the president on any subject the writer may choose, the other on some drug more or less commonly used and not previously discussed. Alternates are also appointed in case the principal should not be able to fulfill his engagement also two or three to discuss the papers.

The by-laws require that members chosen to read papers shall notify the secretary of the subject selected ten days before the time of meeting, the object being that on the postal cards announcing time and place of meeting the subject of essay be placed, and thus afford members wishing to discuss the papers, and opportunity to "read up" should they so desire.

Now as the duties of the secretary are many and his (or her) responsibilities "tremendous," there should be some recompense, and what is better than the privilege of relating how some of the efforts along the above lines are met.

With apologies, I will relate a case or two where the secretary is "up against it" and only a general sense of some re-

sponsibility on the part of the members can relieve such conditions.

In one case, a goodly number of members had assembled, the only thing lacking being the essayist, when in comes a telegram saying he was called "to the sticks" just at "train time", hence no paper. Another sent to say that as soon as his grand child was quieted and gotten to sleep he would come; another that he had not had time to finish his paper and therefore he could not come.

But the last one should acquit the secretary of any charge of not using all available means of getting the essayist and his paper out.

Due notification was given the member, subject chosen and announced. The time for calling the meeting to order arrived, but the essayist was absent. Repeated calls over 'phone failed to get any response whatever, and finally the aid of a prominent attorney was invoked. After waking the doctor and all of his babies a voice from the window called out that he was sorry he could not be present. Investigation the next day revealed the fact that the essay had been duly and truly prepared, but the children having the prevailing paper doll craze had gotten hold of it, and in a few minutes produced many learned dolls out of the material that had caused the father much thought, and further resulting in the wreck of the county society's program.

Yes, the county secretary must work against great odds at times, but the individual member must take some of the responsibility "on his shoulders" and help in the great work of the county association if the aims of the organization are to be achieved—the building up of the profession in the best sense of the word.

THE SECRETARY AND THE SOCIETY.

BY. D. D. SALLY, M.D.,

Secretary Orangeburg County Medical Society.

This subject I have chosen in the hope that what I shall have to say on it may make the profession devote a few moments thought to the Society's interest

and welfare, and then devote a little time and trouble to promoting the general interest of the profession and of humanity.

There seems to be a general lack of interest in most of the Societies throughout the State; a kind of generally conceded feeling that the Secretary can run the Society, and go out and drum up such members as he can drag into the meetings, and with a few in attendance, and sometimes none, keep up a good, live Society. Gentlemen, these things ought not to be. Your Secretaries all over the State have feelings in the matter if not, they ought to have, and they want to see the Societies prosper, but to have them do so, we must have the interest and co-operation of the profession at large. Not simply the names on the Society roll, but presence at the meetings and general activity.

We have less than half the physicians of the State on our Society rolls and we ought to have all. We have an average attendance at the County Society meetings of considerably less than half the membership perhaps one-fourth would be nearer right, and we ought to have at least half. If every member of every society, in the state would devote a little, only a little, time and trouble to talking up his society and endeavoring to work up interest in, and to get new members for, the Society, things would begin to move, and in unity there is power.

The profession is doing a great work for humanity, and we have a greater to do. For this we need knowledge, and ever more knowledge. We need unity of purpose, we need co-operation, we need to understand each other and to cultivate each other's society. In all of this the county society will aid wonderfully. Well might all the professional jealousies and unkind feelings, and discourtesies, will vanish when we have live, active working county societies.

In the bible we find the followers of Christ commanded to "Forsake not the assembling of yourselves together." This same admonition will apply to our profession, for in our meeting together, and exchange of ideas we are compelled to gain knowledge, and be made better doctors.

We can, if we will, make our county societies first rate post-graduate schools, and this we need for many of us never go to the great medical centers for further study, and we ought to use the means of added knowledge and wisdom that are within our reach.

Let me beg you, gentlemen of our profession, go to work and hold up the hands of secretaries all over the state. See that

they work, and see that you work, not simply that we may have live societies but that we may gain knowledge and wisdom, and be better fitted for our fight against disease and death.

The public looks to us to take the initiative in protecting its health and let us learn wisdom and knowledge, wherever and whenever we can, thus better fitting ourselves to discharge the great trust placed in our hands.

COUNTY SOCIETY REPORTS.

SPARTANBURG.

By Rosa H. Gantt, M. D., Sec.

On August 27th, the date for the regular monthly meeting of the Spartanburg County Medical Society, under its auspices was organized the Spartanburg County Anti-Tuberculosis League. Three hundred and fifty invitations were issued and these brought out a representative gathering of citizens, men and women, who were very much interested and promised their support to this work.

Miss S. S. Ravenel of Aiken who has done so much for the Aiken County League was present by invitation and read a very interesting report of her work in Aiken. Dr. E. M. Nighbert, Veterinary Inspector of the U. S. Bureau of Animal Industry, who is now stationed in Spartanburg was present and read an instructive paper on Tuberculosis in animals, and laid great stress on the importance of having a milk and food inspector. Dr. L. J. Blake as chairman of the city Board of Health was called upon to make some remarks, he thought it was high time for something to be done to try and stamp out Tuberculosis and read what he considered the best rules laid down by the various authorities for the crusade against the Great White Plague. Dr. J. Ed Edwards had several microscopes and numerous slides which demonstrated the Tubercle Bacilli and which he exhibited to those present. After general discussion the League was organized with the fol-

lowing officers.

President, L. Rosa H. Gantt, M. D.

Vice President, Prof. Hugh T. Shockley.

Secretary and Treasurer, Lesene Smith, M. D.

PICKENS COUNTY.

By R. J. Gilliland, M. D., Secretary.

The largest meeting the Pickens County Medical Society ever held was called to order Sept. 1, 1909, by Dr. J. S. Bolt, the president.

The regular order of business was omitted, and Dr. R. J. Gilliland, by request of the president, introduced Dr. R. B. Epting, of Greenwood, S. C. who had been invited to read a paper on Pellagra, which is being given so much study at this time. Dr. Epting spoke from notes, more than an hour.

Dr. Epting has no specific treatment. His treatment is symptomatic.

As to the cause of the disease, he has no theory, at this time, but is inclined to the theory of the Italian expert, Lombroso, that it might be caused by the mold on the corn used in this country, for food.

Dr. Epting reported several cases now under his treatment, which are improving. He gives arsenic in some cases, and iron, quinine and strychnine has a good effect in other cases. For the dry eruption, he advocates yellow oxide of mercury ointment. For moist eruption, he advocates paroxide of hydrogen.

Dr. Epting's paper was a very masterly

review of Pellagra, the disease of today, and was enthusiastically received by the society. At its conclusion, on motion, the thanks of the society were tendered Dr. Epting for his address.

Dr. C. N. Wyatt's case was prevented from attending.

The paper was fully discussed by Drs. C. N. Wyatt, W. A. Tripp, H. E. Russell, and F. Lander of Greenwood.

FOURTH DISTRICT MEETING.

The Fourth District Medical Association will meet here Nov. 15, 1809.

We are going to try to make this a good meeting, and give the visiting doctors a cordial greeting.

Dr. R. J. Gilliland was appointed to read a paper before the meeting.

CORRESPONDENCE.

STATEMENT OF WORK AT THE STATE LABORATORY.

Editor The Journal:

Thinking that a statement of the work done at our laboratory might be of interest to the readers of the Journal, I am giving you herewith a summary, which shows what has been done since July 1st, when the laboratory was opened.

Four hundred and four microscopical examinations have been made, and fourteen animals examined for rabies. Of the fourteen animals examined for rabies—eleven were found to have the disease. Ten patients have been admitted for rabies immunization, four of whom have been discharged.

Dr. Coward endeavors to get his reports out promptly, and to aid him to do this we ask that all specimens for examination be addressed to Dr. F. A. Coward, Director State Board of Health Laboratory, Columbia, S. C. Specimens otherwise addressed may go to his home or office, thus being delayed in reaching the laboratory.

From inquiries received it would seem that some of our physicians have the impression that charges are made for the work. We again repeat that the laboratory is for the benefit of the citizens of the state, and is open to them through the physicians—no charges whatever being made for examinations.

In our Pasteur department we examine animals, furnish the virus and give the treatment free. The only expense the patients have is for board and lodging

for the three weeks they are kept for treatment, and their railroad fare to and from the laboratory. We do not pay express charges on specimens, nor do we pay for telegraphic reports—though we will gladly send telegraphic reports, collect, when requested.

Our work is progressing nicely, and it is indeed encouraging the kindly way it has been greeted by the physicians; and the gratitude shown by the rabies patients and their friends is an incentive for us to do better work.

Our office and laboratory is in Harper College building, north side of University campus. A sign hangs over the door, and we invite all physicians when in Columbia to look for this sign. When you see it—don't knock—just walk right in, for a warm welcome awaits you.

Very respectfully,
C. F. Williams.

Columbia, S. C., Sept. 13, 1909.

INDUSTRIAL AND FRATERNAL INSURANCE FEES.

Editor The Journal:

The subject that apparently bobs up month after month despite the hot weather, is that of the proper fees for Industrial and Fraternal insurance examinations. Apparently the two leading ideas in regard to this insurance proposition could be expressed this way. Some look on industrial insurance as not true insurance, but merely a burial benefit participated in by poor people, carried by them really not for the sake of insurance,

but in order to give decent burials to themselves and children in case of death. The physician taking this view of the matter, looks on their examination not as insurance examination. The inspection blanks are really never filled out as apparently is required by the blank used, and of course the physicians taking this side of the case insist that they can charge what they please without reference to the insurance fee laid down by the Association.

Again, Fraternal Insurance, that is insurance especially by the Woodmen of the World and by the Knights of Pythias is regarded by some as an insurance conducted on fraternal considerations; that it is an insurance gotten by the poor man at cheaper rates than the old line insurance and that the examinations are properly cheaper, or should be cheaper and the fraternal spirit of helping is declared to extend to the physician making the examination, who must also be a member of the organization who takes the attitude that an organization which goes into insurance should be held and bound by all the duties and all the laws that a money making insurance organization in the state is held by, and that the insurance proposition is entirely outside of the fraternal part of it, and is a business proposition maintained and upheld by men not directly connected with their fraternal chapter.

The practical result of the dissensions has been the appearance of medical scabs in the different towns and cities of South Carolina, willing and anxious to do this fraternal and industrial insurance. Their services have been eagerly snatched up in most cases by different organizations and practical result is that the young medical man who has joined his society immediately upon graduation or upon leaving his hospital, is placed at once at a disadvantage, for it is the young medical man usually who has been benefitted entirely by these examinations and who has been helped to make his living by them.

There are accusations afloat that certain members at times make insurance examinations and rely upon private agreement to evade the law passed by the association. These are in many cases

merely rumors impossible to be sifted and yet still remaining in the air. It is regarded as strange by some that these fraternal organizations should employ men of no ability in many instances, men unable to make a living in their profession in the legitimate practice of this profession and men whom organizations after a short time have turned off as being incompetent in their examinations. It is said that business taken by these men for their insurance department, undoubtedly weakens the stability of that organization in its insurance features. Now I have summed up the opinions that come in and out of my office month after month. The conclusions we come to are first, it is not right nor proper to allow shysters or scab insurance doctors to get the legitimate business of the younger members of the profession. It is not right for the younger members of the profession to be deprived of an income to which many of them look forward to for their support in commencing a professional life. It is a mistake perhaps, to ever let prices become a matter of medical ethics. We have known of doctors carrying patients to some of the biggest, most reputable surgeons of the world, and upon being asked what the fee shall be, they have replied, "Doctor, whatever your patient is able to pay, is satisfactory to me." Now if the big surgeon can make his fee anything, why is it wrong for the little practicing physician to do likewise. It seems to me as Secretary of our organization, that this matter must be met with and disposed of in some way that is acceptable to the majority of the members of the profession, after careful deliberation. It is by no means settled now, and it is a condition that proves a great temptation to many well meaning members of our profession. It would be subject well worthy to be discussed in our Journal if the secretary of each county society will express the opinion of his society and write it to the Journal. No snap shot deliberation or treatment of this subject in a hurried meeting would compare in its effectiveness with the cool deliberation of this subject and its expressions through the columns of the Journal. I only make this, Mr. Editor as a personal

suggestion from me.

Yours very truly,
Walter Cheyne.
Sumter, S. C., Sept. 8, 1909.

MATERNAL IMPRESSIONS.

Editor the Journal:

I report the following interesting case, occurring within five miles of this place.

The pregnant mother learns of the amputation of the arm of one of her neighbor's sons and visits the bedside of the wounded boy and asks to see the arm, which, in the course of the evening, she viewed, as the stump was being dressed, she placing her own hand upon the wounded member and examining minutely the stitch holes.

A few months after, she gave birth to a healthy male child, sound in every way, except one arm was wanting, appearing to have been amputated at the same place, stitch holes and all showing relatively as in the wounded boy above mentioned.

This is vouched for and attested by half a dozen doctors, besides myself. Being such an unusual case, out of the line of ordinary "Maternal Impressions," I call the attention of the profession to it.

Yours very truly,

M. Smith, M. D.

Page's Mill, S. C.

TREATMENT OF FISTULA.

J. D. Albright, M. D., 3228 North Broad St., Philadelphia, in his recent work, entitled, "Rectal Diseases. Their Diagnosis and Treatment by Ambulant Methods" says, while discussing the treatment of Anal and Rectal Fistulæ by Local Application: (Page 337)

"After the induration has softened and the pyogenic membrane cast off, so that the interior seems clean and free from inflammation healing may be stimulated by the application of a silver nitrate solution, 5 per cent., or Special Protonuclein Powder may be dusted along the tract by means of a powder blower. If the internal opening is small, it should be enlarged sufficiently to permit free irrigation through it."

Others have found that in the treatment of internal hemorrhoids that a solution of Protonuclein Special Powder with olive oil and a small amount of this solution injected up the rectum gives great relief and has marked healing powers. About three grains of powdered Protonuclein in a tablespoonful of olive oil is the usual amount used.

A Convenient Chloroform Package.

Much interest is being manifested in the chloroform dropper-ampoule marketed by Parke, Davis & Co., and which, in the opinion of a good many physicians and surgeons, is the most convenient and practical chloroform package that has ever been introduced to the profession. The new device is at once a hermetically sealed container and a perfect dropping-bottle that can be carried about in the emergency bag at all times in readiness for immediate use. It supplies in portable form enough of the anaesthetic for one service—about thirty grammes. The desirability of such an individual package and its superiority over the ordinary amber, cork-stoppered bottle heretofore supplied is appreciated when one remembers that chloroform in broken packages rapidly deteriorates under the influence of air and light and becomes contaminated with chloroform decomposition products.

The dropper-ampule is, furthermore, a very economical package, as loss by evaporation, spilling of contents, and deterioration are practically eliminated. The chloroform may be dropped directly upon the mask with ease and accuracy. The anaesthetic has perfect control of the outflow and is enabled to regulate at his discretion the intervals between drops.

Physicians desiring further information relative to the dropper-ampoule are advised to write to Parke, Davis, & Co., for their illustrated circular descriptive of the new package, addressing them either at their main laboratories, Detroit, Mich., or any of their branches.

An intractable non-gonorrhœal cystitis in the male nearly always indicates a tuberculosis kidney.—American Journal of Surgery.

JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION.

FLORENCE, S. C.

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Dr. F. H. McLeod, Florence, S. C. Editor.

TESTIMONIAL TO DR. BABCOCK

At the recent meeting of the South Carolina Medical Association in Summerville, in President Baker's address, the suggestion was made that a vote of appreciation be given Dr. J. W. Babcock "for the painstaking research he has done in connection with the identification of Pellagra, in this country."

This was a happy idea, and its endorsement gave the Association pleasure—an opportunity to express its appreciation of Dr. Babcock, and the work he has done, not alone in the discovery of Pellagra, but for his work as a public servant.

The condition of affairs at the State Hospital for the Insane is familiar to us all—old and inadequate buildings, tremendously overcrowded and small appropriations—yet this quiet, earnest man has done a most commendable work, as the head of this institution.

In complying with the wishes of the Association, the following letter has been sent to Dr. Babcock:

Sumter, S. C., July 30, 1909.

Dr. J. W. Babcock,
Columbia, S. C.

Dear Doctor:

It is with pleasure we perform the task assigned by the South Carolina Medical Association at its last meeting.

By the unanimous vote of the Asso-

ciation, the report of the Committee on President's address was adopted as follows:

"The committee recommends that suitably engrossed resolutions shall be prepared by the Secretary of the Association, signed by the president and secretary, and sent to Dr. J. W. Babcock, Columbia, S. C., for his important discovery of a disease, Pellagra, which heretofore was unknown to exist in this state."

In transmitting the will of our association, we have a sincere personal pleasure in the recognition of merit in a fellow member of our Association, which has added much to the world, in scientific medical attainments.

(Signed.) J. L. DAWSON, M. D.
President S. C. Medical Association.

WALTER CHEYNE, M. D.
Secretary S. C. Medical Association.

ILLEGAL PRACTITIONERS.

It has been hard to secure conviction of those who have been indicted in the courts for practicing medicine without a license in this state, and in some cases where conviction was had, the fines were only nominal, and not enough to prevent parties from again practicing.

In enforcing the law, the council has made every effort to induce the men without licenses to try to get them, and much sympathy is felt for those who make an

effort and fail, and we would be glad to have a provision for temporary license for those who fail on technical questions or non-essential branches, yet making fair averages otherwise. Some of those who fail are perhaps without resources and a temporary license, for one year, would give them an opportunity to make a living, and encourage them to try to be-

come legal practitioners.

When conciliatory means fail, it is the disposition of council to force them in line. We publish a clipping giving an account of a very interesting case in Abbeville county, in which the defendant has been enjoined from further practicing medicine in this state. This is a new procedure, and certainly seems to be a solution of the legal difficulties.

When a pyloric carcinoma is palpable, preoperatively, radical removal is usually impossible—H. N.—American Journal of Surgery.

The examination of the eye ground's will often be the first clue to atrophy of the brain.—N. H.—American Journal of Surgery.

Osteosarcom about a joint may closely simulate a rapidly-growing exostosis deformans.—H. N.—American Journal of Surgery.

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The Journal OF THE South Carolina Medical Association

Vol. V.

Florence, S. C., October, 1909.

Number 10

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of

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ORIGINAL ARTICLES.

STRYCHNINE IN THE TREATMENT OF CEREBRAL HEMORRHAGE.

By M. J. D. DANTZLER, M. E., Elloree, S. C.

The object of this paper is to give notice of the probable danger of using strychnine in the earliest stage of Cerebral Hemorrhage, a practice which my observation leads me to believe is becoming quite common in later years. It is not uncommon in a case of sudden apoplectic stroke, when friends and relatives are stricken with alarm and terror, and a physician is hastily summoned and entreated to do something quickly, to see the doctor take from his vest pocket his hypodermic case and therefrom take a strychnine tablet and inject the same

hypodermically into the patient.

Now, why use strychnine as the first remedy in cerebral hemorrhage? What result may we reasonably expect? To answer these questions properly let us go back to some of the pathological factors in cerebral hemorrhage. There are two classes of cause; predisposing, and immediate or exciting. The predisposing causes are disease of the cerebral vessels, especially of the arteries, whether the patient was a drunkard or only a moderate but regular dram drinker, thus favoring fatty degeneration. Another predisposing cause is senile atrophy of the tissues in old age.

The immediate or exciting causes of

*Read before the South Carolina Medical Association at Summerville, S. C., April 1909.

cerebral hemorrhage are injuries of the head, powerful hypertrophic action of the heart and "Strong Muscular Effort," as in lifting heavy weights and straining at stool. I have known three victims of cerebral hemorrhage who, previous to entering the privy for the purpose of evacuating the bowels, seemed to be enjoying fine health and spirits, two of whom dropped dead while at stool, and the third one was brought out in an apoplectic condition and lived a few hours. I remember three gentlemen, each of whom was in good spirits and engaged in continuous conversation for some time, who died suddenly, presumably from cerebral hemorrhage caused by too much cerebration—too great functional activity of the brain. Intense and continuous thinking causes an augmented flow of blood to the brain, which sometimes causes rupture of the fragile atheromatous arteries or degenerated capillary vessels. Even vomiting in which there is strong muscular action, has impelled the flow of blood to the brain with sufficient force to rupture fragile arteries and produce cerebral hemorrhage.

Sometimes, according to the text books the source of the hemorrhage is within the brain, blood being forced through the cerebral tissues into the meshes of the pia-mater or upon it. Anders says: "In intra-cerebral hemorrhage the blood will be found to have infiltrated the brain substance, and, if extensive, it may have penetrated into the ventricle. In such cases the white matter is torn asunder, leaving a ragged space that is more or less filled with recent clot and fragmentary grey matter if the ventricles have been entered blood may escape from the lowest into the Subarachnoid Space."

After the patient falls from the effect of the stroke, the blood must in many cases continue to escape from the arteries or capillaries and spread out in different directions according to the locality of the bleeding point; this effused blood pressing upon certain points of the cerebrum causes unconsciousness, often accompanied by paralysis. It seems that some authors have had doubts about the blood pressure causing unconsciousness.

I believe that pressure on the cerebrum

causes unconsciousness and I will relate an army case in illustration. During the Confederate War, at the battle of Olustee, Fla. all the living wounded were supposed to be removed from the battle field the same afternoon and night, only the dead were supposed to be left on the field. But next morning a man who was not dead was found upon the field. He was brought to me in an unconscious condition, although not paralysed. I found in the top of the cranium a long minnie ball which had passed through the upper part of the parietal bone; so that as much of the ball had passed beyond the bone inside as remained outside. Seizing the ball with the bullet forceps, I made a strong pull; but the ball failed to follow. As I was young and inexperienced in military surgery this being my first battle after my promotion, I hesitated when I began to think what might be the probable effect of a sudden rush of air into the orifice after a very strong pull and a very sudden extrication of the ball. However, I decided it best to extract the ball on the field: so, using all my strength, I extracted it. Immediately the man became conscious, intellect was resumed and he rationally answered all the questions I asked him. I dressed the wound and sent him to the infirmary. This is positive proof that pressure on the cerebrum causes unconsciousness. In a certain length of time in cerebral hemorrhage the effused blood coagulates, but there is still for a while the same pressure on the cerebral substance, causing, as has been said, the brain substance to become pale and anemic, and thus abolishing the function of cerebration in the cerebrum, the result of which is unconsciousness or inability to think. If the pressure is directly or indirectly on the corpus-striatum there will be paralysis of motion on the opposite side when on the optic thalamus there will be impairment of sensibility on the opposite side. The effusion of blood may spread to such an extent as to cause coma and paralysis of both motor and sensory nerves. Before clotting of the effused blood, hemorrhage may continue sometime and the blood make its way, if extravasated in large quantity, into the ventricles or medulla, or central canal of the spinal

cord or into the spinal arachnoid cavity. Now, it occurs to my mind that, as the action of Strychnine seems to be principally on striated muscles, having comparatively very little effect on non-striated muscular tissue, the effect of its administration would be a powerful tonic to the cardiac muscles, thus driving the blood with greater force through the system by the *vis-á-tero* without any special action on the non-striated muscles of the arteries. If this be true the natural result in cerebral hemorrhage previous to the coagulation of the blood would be to increase the hemorrhage and thus broaden the area of extravasation, making the case more complicated and causing greater and more extensive pressure upon the brain, even involving pressure upon such portions as would result in paralysis if the patient is not already paralyzed. Taking this view of the matter, there does not seem to be any indication for the use of strychnine or any other powerful heart tonic since the patient, up to the time of apoplectic stroke generally appears, with but few exceptions, to be in vigorous health and fine spirits. Although I have never used ergot or adrenolin in cerebral hemorrhage and have no authority for it, I would sooner resort to the administration of either one of them to arrest the hemorrhage than the Strychnine; because they stimulate the non-striated muscles of the arteries, contracting them, and thereby tending to the arrest of further hemorrhage, without any special action on the striated heart muscles.

Now, in view of the foregoing theory, if it is correct, what are the indications for treatment immediately after an apoplectic stroke from cerebral hemorrhage? Not to increase the force of the heart's action, surely! Not to be much alarmed about the coma. Coma relaxes all the muscles, except the cardiac and respiratory muscles, extinguishes cerebration and keeps the whole system in a state of quietude, which is the very best condition for the patient under the pathological circumstances. It also diminishes irritation which is always antecedent to inflammation. Is not coma then an effort of nature, the "*vis medicatrix naturae*" of the old authors, to

check any further extravasation of blood until clotting takes place and the lesion is repaired? Opiates are quieting and equalize the general circulation, thereby diminishing irritability and the resultant tendency to inflammation at the point of arterial lesions. Opiates in moderate doses produce an "agreeable sense of mental and physical rest." They are sedative and conserve energy in cases in which the vital forces are impaired. The National Standard Dispensary says of camphor: Probably its most valuable use is as a diffusible stimulant for the purpose of supporting the system during a crisis in a severe illness, or when collapse is threatened." Calomel is a sedative and alterative which "re-establishes healthy functions of the system, producing a favorable change in the process of nutrition and repair."

So, instead of using Strychnine at the start, I use a compound powder of morphine, calomel, and camphor in small doses, repeated every two hours, until six doses have been administered. If the patient is too comatose to swallow I dampen or mix the powder with a little syrup and place it on the tongue, and direct that the course be followed by castor oil, by which time consciousness is generally sufficiently renewed for the patient to swallow. If the patient is paralyzed on one side, I have the temple on the opposite side shaved and place a blister on it. Afterwards I may use potassium bromide or iodide. When the effusion is about absorbed I sometimes use Strychnine or electricity as a muscle tonic for paralysis and quinine if there is malaria in the system.

This has generally been my treatment which has been followed by very satisfactory results in the first and second attacks in the same individual. No treatment in the third or fourth attack can be relied on, especially where there is paralysis. But in some cases the first attack is never followed by another, and finally death is caused by some other disease or by old age.

We can scarcely expect the patient to survive even the first attack of cerebral hemorrhage where Strychnine is first and immediately used; but by not using it at first and resorting to the treatment

above mentioned from four to eight years of additional life may reasonably be expected in old age where proper attention is paid to diet and the avoidance of too great muscular action and mental excitement.

DISCUSSION

DR. CORNELL:

I was very much interested in seeing the statement in Koch's Clinical Pathology that immediately following an apoplectic stroke, there is a rise in the general arterial pressure, this being for the purpose of raising the bulbar pressure equal to or above the intra-cranial pressure, in order to avoid bulbar anemia, which in his book is put down as being the cause of death in apoplexy. It caused me to quit all treatment in apoplexy except absolute quiet. The old saying is that the third stroke is fatal, and it seems to me that we can do absolutely nothing at the onset of an apoplectic stroke, except maintain quiet.

I think the Doctor's point as to coma being nature's method of maintaining quiet is right, and of course it is the result of pressure, etc.; yet, at the same time, it is the best thing for the patient.

As to the giving of stimulants which interfere with pressure, we have no reasons for using them, or means of controlling them, and we may be interfering with some change that taxes place in the natural course of the disease, which may

result in trouble rather than benefit.

DR. OUZTS:

I want to ask the Doctor just what he considers best to use: Morphine, Calomel, Camphor—what do you use?

DR. DANTZLER:

I use them in combination.

DR. OUZTS:

How much of each?

DR. DANTZLER:

About six grains of calomel, six grains of camphor and half a grain of morphine sulphate combined and divided in six powders: one to be given every two hours.

DR. OUZTS:

You say you put it on the tongue?

DR. DANTZLER:

If the patient can swallow, I let him do so; if not, I place it on the tongue to be absorbed. On my return visit the evening or morning after, I generally find the patient conscious enough to swallow.

DR. OUZTS:

How much morphine do you give?

DR. DANTZLER:

My usual prescription is:

By Calomel grs vi—vii

Compound Morphine Powder grs xx.

Divide in six powders, and give one every two hours: to be followed by castor oil.

"SIMILAR SYMPTOMATOLOGY IN CHRONIC APPENDICITIS AND CHRONIC GALL BLADDER LESIONS—WITH REPORT OF CASES."

By E. A. BAKER, M. D., Charleston, S. C.

In that many of the symptoms of these two diseases are the same, this subject is one of deep concern to the diagnostician and one of vital importance to the patient. The most important of these symptoms, which are common to both of these diseases, are digestive

disturbances, nausea and vomiting, pains in the epigastric region, jaundice, and pyloric spasms.

Douglas, of Nashville, Tenn., says: "The common error in diagnosis is in mistaking an acute cholecystitis of the most fulminate type for appendicitis. The pain in appendicitis may be under the liver; the pain in the cholecystitis may be in the right iliac region. The tenderness in

*Read before the South Carolina Medical Association at Summerville, S. C., April, 1909.

cholecystitis may be elicited at McBurney's point. The general symptom of bacterial invasion are common to both. Peritoneal phenomena are "the same in both. And, indeed, the confusion grows more confounding the more carefully the symptoms are analyzed.

Hotchkiss attaches great differential importance to lateral compression of the lower ribs in developing pain as a symptom of cholecystitis. An intelligent history of the mode of onset is perhaps our best guide as to a diagnosis. If in either affection a tumor develops, discrimination should be made, but without it errors are possible and excusable."

Fowler says "The diagnosis of cholecystitis is made on the basis of the character of the attack and the localization of the pain and tenderness at the gall bladder. While it may be mistaken for a perforative lesion in the vicinity, the disease for which it is most likely to be mistaken is acute appendicitis. The symptoms of peritoneal involvement are common to both. In any event exploratory abdominal section is appropriate in all the conditions for which this affection may be mistaken."

Ochsner says: "Perhaps the most common symptom of gall-stone disease is indigestion. The attacks of indigestion begin with pain in the epigastrium, followed by nausea and finally by vomiting, which usually brings relief. The nausea and vomiting are partly reflex in origin and partly due to direct irritation of the stomach.

Other gastric disturbances associated with gall-bladder disease are frequently manifested by distress in the epigastric region, described as a feeling of weight or a burning sensation after eating; also gaseous distension of the abdomen. The subjects of gall-stone disease are also usually troubled with eructations of gas after eating.

It is not uncommon for these patients to have repeated attacks of nausea and vomiting and attacks of indigestion accompanied by severe pain in the epigastrium, often called gastralgia or neuralgia of the stomach. After an attack of nausea and vomiting and epigastric pain there is apt to be an interim when the patient is free from stomach symptoms

or has only the milder symptoms of bloating and distress after eating."

Ochsner also states:

"We have learned by experience that many cases suffering from cholecystitis also suffer from chronic appendicitis."

Ochsner cites the following case:

"A man between the ages of 20 and 32 always carried some morphine pills, which he took during attacks of pain, which never lasted more than a few hours. Diagnosis: by his family physician, gall stone. Suffered from gastric disturbances, ate but little after those attacks for several weeks. From 34 to 42 entirely free from these attacks of pains, but constantly suffered from digestive disturbances. Ochsner's diagnosis Appendicitis. Operated and cured." "of the stomach. After an attack of nausea and vomiting and epigastric pain there is apt to be an interim when the patient is free from stomach symptoms or has only the milder symptoms of bloat and distress after eating."

Mayo says:

"Stomach troubles or dyspepsia most often due to appendicitis or gall-bladder lesion and not always to gastric ulcer.

Gastric ulcer often diagnosed and at time operation instead of finding ulcer either gall-bladder lesion or appendicitis is found."

Mayo also states:

"Pyloric spasms may be caused by reflex disturbances from gall-bladder lesion or appendicitis." "Lesions of appendicitis or gall-bladder telephone to the stomach to shut off up there, take in no more food, in that there is trouble down here. As a response to this demand nausea and vomiting results if food is taken.

Mayo further states:

"We once operated on diagnosis but not now—we explore to find out."

Again quoting from Mayo:

"Catarrhal Jaundice has nothing in its clinical course to suggest a surgical lesion, neither has the so-called hemato-genous jaundice, which is due to the rapid destruction of red blood corpuscles from toxic or chemical poisons." He also says:

"Jaundice has no part in the diagnosis of gall-bladder stone, and when present means a complication."

Kehr states that, "in his experience, Jaundice is absent in from 80 to 90 per cent. of gall-stone cases."

Deaver states "that Jaundice is absent in the majority of gall-stone cases."

Again Mayo says:

"Before making a diagnosis of non-calculus chronic cholecystitis one should examine the appendix."

REPORT OF CASES.

(No. 181) Mrs. R. Married—several children. Age 45. For 10 years suffered with marked indigestion, repeated attacks of pain in gastric region sufficient to confine her to bed for weeks at times; several Doctors diagnosed her disease as Gastric Catarrh, floating Kidney, Aneurism etc. She had been practically an invalid for 3 or 4 years, when she was referred to me; her chief symptoms being that of indigestion and nausea. My diagnosis: Gall-bladder stones. Operation found two stones, each 1 inch in diameter Gall-bladder wall 3-4 inch thick—removed it. Never had Jaundice. Appendix diseased—twice its normal size, removed it.

(No. 189) Mrs. R. Married—2 children. Age 47. Suffered several years with indigestion and gastric disturbances—no Jaundice or gall-bladder colic—just previous to operation lost 17 pounds, due to reflex irritation of gall-bladder on digestive track. Operation—stone 3-4 inch in diameter—found no complications.

(No. 148.) Mr. J. St. Stephens, S. C. Aged 35. Referred by Dr. Mood.

Chronic Gastritis with suspicion of cancer of stomach. Last few months lost in weight 17 pounds; suffered so intensely after eating that he often produced vomiting by introducing fingers into throat.

Dr. Mood examined contents of stomach after test breakfast; found no evidence of cancer.

DIAGNOSIS.

Chronic appendicitis or gall-bladder.

Appendix removed: appendix looked as though a normal one but after opening it, a large ulcer found in the mucous membrane, which evidently was the cause of all the reflex symptoms of the stomach. Patient relieved of all gastric disturb-

bances, and cured.

(No. 74) Mr. J. LaR., Youngs Island, S. C., aged 58. Occupation: farmer. Referred by Dr. Maybank.

History: For the last year suffered with intestinal indigestion, some loss of weight, once slightly jaundiced, and took but little interest in his business.

Diagnosis: Liver Disease.

About 6 months previous to operation, was sent to Florida for his health. After staying there for a couple of months, the Doctor who was attending him advised him to go to Asheville, N. C., stating that he considered it imperative in order to restore his health and also that he could not live 6 months if he did not go. He returned to his home with view of making arrangements to carry out the Doctor's advice. In the meantime he consulted Dr. Maybank. He made a diagnosis of chronic appendicitis and referred him to me for operation. The findings at the operation confirmed the diagnosis of appendicitis and not that of gall-bladder lesion.

No. 4) Dr. C., aged 25, 2 years ago consulted me for intestinal indigestion; had lost considerable weight; at times had marked pains in the region of the gall-bladder accompanied with slight jaundice and low fever, not sufficient however, to confine him to bed. He became so emaciated that he had the appearance of being tubercular. My diagnosis was "stone in the gall-bladder." He refused operation. One year afterwards he returned to me not improved in appearance but with pain more localized over the appendix. We both changed our diagnosis to that of "chronic appendicitis" and he immediately consented to have it removed. The appendix showed every evidence of a long standing chronic condition. At time of operation the gall-bladder was found to be negative.

DISCUSSION

BY DR. A. B. KNOWLTON, COLUMBIA:

I am much interested in Dr. Baker's paper. It strongly suggests a case I had some weeks ago from my friend Dr. Beatty, of Winnsboro. All the symptoms of gall stones (except chalky stools) were present; so also a complete ensemble of symptoms of appendicitis, making

it extremely difficult to differentiate between these two conditions. Laparotomy revealed an unusually long vermiciform appendix, thoroughly adherent to the gall-bladder.

There is but little misnomer in regard to appendicitis which has become so common that we accept it as correct; I refer to the expression "right rectus rigidity"; as a matter of fact, it is the oblique muscles (and not the rectus) which are so rigid. Therefore, the expression would be "right Iliac rigidity" or "right oblique rigidity", instead of the old phrase in common use.

DR. R. S. CATHCART, CHARLESTON, S. C.:

Dr. Baker has called our attention to a case of chronic appendicitis and Gall-bladder disease, and also brought out how hard it is to diagnose between either of these conditions and malignant diseases of the stomach. There is no doubt that the best men or leaders are unable to

make positive diagnoses in these cases.

There is another condition, giving similar symptomatology, which I don't think he called attention to; that is chronic pancreatitis, either that or malignant disease of the pancreas.

We had a case some time ago, which was brought to us with a diagnosis of gall-stones. She had been handled by some good men, and all had concurred in gall-bladder disease. After opening her abdomen, I found malignant disease of the head of the pancreas. This woman had lost no flesh, and only gave symptoms of gall-bladder colic, with slight jaundice.

DR. A. E. BAKER CLOSES DISCUSSION:

I want to thank the gentlemen for their remarks. Do I understand Dr. Knowlton, that you are referring to more acute conditions in regard to rigidity of the muscles? That is what I was dealing with.

UNCINARIASIS, MINERS ANAEMIA, EGYPTIAN CHLOROSIS HOOK WORM DISEASE.

By T. H. SYMMES, M. D., Fort Mott, S. C.

Hook worm disease was first described in man in 1843 by Dreelinie, Griesinger demonstrated its connection with the Egyptian chlorosis, a disease which Sandwith states is mentioned by the old Egyptian writers of between three and four thousand years ago. Subsequently the disease was described in the tunnel workers at St. Gothard, and from this time on has been recognized as an important cause of tropical anaemia of miners, brick workers and tunnel workers.

The parasite is found in tropical and semi-tropical countries, and Osler states is one of the most fatal of parasitic diseases. While it was known in the United States, it was not until the interest aroused in tropical diseases by the Spanish American War and the work of Ashford at Porto Rico that the attention of American physicians was called to the

disease. In Porto Rico in 1903, among a total of 23,433 deaths, 5,736 were from anaemia and practically all of these due to uncinariasis.

Reports of cases were published in 1901-02, but in later years Dr. Stiles took up the study and demonstrated, to the astonishment of the profession, that the disease was endemic in many places, and was the cause of the common anaemia of the Southern States.

There are two forms of the parasite that cause the disease in man, the old world uncinaria duodinale and the new world uncinaria Americana, described by Dr. Stiles. The male and female parasites form both the same general characters. The males from 7-11-MM in length and the females from 10-18. The new world or American worm is longer and has well marked specific peculiarities. The mouth is provided with a heavy set of sharp teeth, with which they pierce the mucosa of the bowel, and by means of a strong muscular oesophagus suck the

*Read before the June meeting of the Orangeburg County Medical Society.

blood. The male has a prominent caudal expansion.

The eggs of the American form are from 64-76 M by 36-40 M. The European form 52-64 M by 32 M. They are laid in segment lotions, forming characteristic bodies in the feces of infected persons. The development is direct without an intermediate host. The Embryo lives in the water or moist ground and passes through the rhabditiform. The mode of entrance into the body has been much discussed. They may gain entrance into the body by drinking water containing larvæ, or with the dirt from the hands of miners and tunnel workers, or in the soil eaten by clay eaters. Loos has demonstrated that the organisms or embryo worms readily enter the skin and are carried by the skin to the right side of the heart and to the lungs, escaping from the pulmonary vessels into the air spaces of the lungs, pass up the bronchi and trachea to the pharynx and are then swallowed, and in this way enter the stomach and from here to the intestines. Others have suggested that the ground itch of the tropics may be due to the penetrating of the skin by the hook worm embryo, and Boycott and Holdens think that the skin eruption called Beucher in the Cornish miners may be associated with the entrance of the worms. The adult worms are chiefly found in the Jejunum, but they may be found in the duodenum and in the colon, but very rarely in the stomach. The duration of life in the bowels has not been determined, but probably they live there for years, and the liability to reinfection is very great.

SYMPTOMS:

The constant drain on the system by the sucking of blood; the loss of blood into the intestinal tract through the bites of the organisms through these wounds infection by other bacteria may take place, causing the walls of the bowels to become thickened and degenerated so that its functions are interfered with and finally toxic substances may be produced by the parasites which act injuriously upon the patient.

There has to be a considerable number of the parasites to produce any symptoms. The investigations of many physicians have shown that in some districts a con-

siderable number of apparently healthy children have the ova in their stools. During the stage of incubation there may be some gastro-intestinal irritation and, according to Sandwith, fever. In the advanced condition anæmia is the most characteristic feature. The skin is of a dirty muddy hue, sometimes called the Florida complexion. The eyes are glassy and a dull expression. Dr. Stiles says that the stare is characteristic. In children there is much interference with growth, so that they are ill developed. The liver and spleen become enlarged, and there may be swelling of the feet. The abdomen becomes distended and assumes a pot-bellied condition. From the anæmia may have palpitation of heart, shortness of breath, etc. The red blood cells may become as low as 2 1-2 to 3 million and haemoglobin 40 per cent. and I believe Osler reports a case where the haemoglobin was as low as 37 per cent. and leucocytes 55,000.

Differential count eosinophilia is most important feature, being present in 94 per cent. of the cases.

The diagnosis rest upon finding the eggs in the feces it is best to examine the stools in a suspected case after the use of Thymol, or blotting paper is useful when a microscopical examination cannot be made. A small amount of the feces is placed upon white blotting paper and allowed to stand for (1) hour and if there is a reddish brown stain suggestive of blood, it is a valuable sign. Prognosis is good except in the advanced cases of anæmia and here it is grave.

TREATMENT.

The prophylactic treatment is proper drainage and disinfection of the stools. Medical treatment:—Thymol seems to have more effect on the parasite than any other drug. The patient should be made to diet himself for a day or two, leaving off greases and solid food. On the night previous to giving the thymol I give a mild laxative as cascara seg. After that acts then give the thymol. Give it in 30 grain doses and repeat in two hours, and from two to six hours later give a table spoonful of mag. sulph. in a glass of water. Oil is not well to give on account of thymol be-

ing soluble in it, and the possibility of resulting toxic effect.

If patients are very weak and anæmic; give the thymol in smaller doses. The

stools should be carefully examined at intervals of a few days, and if the ova is found, the treatment should be repeated.

F. H. Symmes, M. D.

THE INFLUENCE OF DISEASED TEETH AND MOUTH ON THE GENERAL HEALTH.

By W. E. McCORD, D. D. S., Conway, S. C.

The intimate relations of the mouth, with the other organs of the digestive tract, as well as the other structures of the face make it most important that physicians should understand something of dentistry, and especially should be thoroughly conversant with the changes in the mouth which may be the result of general conditions which may enter as an etiologic factor in the production of disease of other organs.

It is often the case that the dentist has the opportunity to observe changes indicative of general affections before they have produced sufficient symptoms to call the attention of the patient or the general practitioner to the derangement of the general health. Imperfect mastication bacterial infection of the food are well suited to play an important part in the etiology of disease of the stomach and intestines.

Nothing but the antiseptic powers of the gastric juice stand between a putrificative process in the mouth and the extension of such putrificative changes in the intestines, where they may be productive of serious, functional, and even organic disease.

The dentist must appreciate the fact that the mouth is a part of the whole body, an important part, but only a part.

He must think in terms of interchangeable scientific expressions of thought, so that his findings, observations and deductions are easily interpreted by the physician.

He must keep pace in medicine, for only those physicians who stand for what is best in medicine can and will, appreciate what is best in dentistry.

The physician, on his part, must recognize that the mouth as a seat of disease is often overlooked and the logical consultant in many cases is the dentist, who by virtue of his constant clinical experience of the normal in the mouth and teeth, must acquire the knowledge that is necessary for the unraveling of symptoms pointing to the mouth as the seat of the trouble.

It is unfortunate that all dentists are not physicians.

Let the physician choose his consulting dentist with the same care he does his consulting surgeon with more care if possible, for all of his patients will have to visit the dentist while only a small proportion will need surgical intervention.

Let the physicians keep abreast to a small extent, with dental literature not necessarily the most technical, but the general literature.

Let the dentist think and work in terms scientifically interchangeable with the physician; then and then only, will the common ground need no defining.

A mouth which is full of decaying stumps cannot do its work properly. It cannot chew the food thoroughly, which the body needs to enable it to combat disease.

Diseased teeth seriously interfere with digestion they lower the vitality, they cause swelling and infection of the glands of the neck; and infected food which is swallowed may infect other organs of the body.

There is no doubt of the fact that well cared for teeth, and a clean mouth help to prevent tuberculosis.

Dental cripples may become easy victims of tuberculosis, they invite the disease and having once acquired it, they have smaller promise of being cured.

*Read before the Horry County Medical Society, May 1909.

Diseased teeth should be carefully washed and treated; a deep laid habit of keeping the teeth and mouth clean prevents decay and destruction.

Ninety-six per cent. of school children have decayed teeth. Instruction in dental hygiene to school children is the primer of the teaching of the prevention of tuberculosis. No one knows quite so well as the physician the direful results attending the eruption of the first set of teeth on the general health of the child. Dr. James W. White for many years editor of the Dental Cosmos, and a man who has made careful research into the subject of teething and its effects on the child, holds that this trying ordeal carries more children to the grave than any other constitutional disorder to which they are subject. So it may be seen that the teeth come in at the beginning as the cause of serious ills affecting the well being of the child.

Later in life the ills and ailments of the teeth have bearing upon the general health as shown in the general derangement of the nervous system suffered from aching teeth, either in the form of pulpitis; inflammation of the liver pulp causing a peculiar lancinating pain, darting in those branches of the trigeminus or the 5th nerve distributed to the teeth, or from peridontitis, inflammation of the membrane surrounding the roots of the teeth and causing what is known as inflammatory tooth ache, sore tooth ache.

More than likely some one or more of the gentlemen present have feeling and recollections of a spell or so with such a case of tooth ache which probably has terminated in the alveolar abscess, and has gone through all the "gum boil experiences," if so I need not argue to convince that ill conditions of the teeth affect the general health and disposition.

Diseased teeth either from caries, tooth ache of whatever kind, or the formidable disease known as Riggs' Disease, which is in a word a destructive ulceration of the Peridental Membrane lining the roots of the teeth, a membrane analogous in kind and purpose to the periosteum covering the bone, can and do derange the general health, because these affections do not affect simply the tooth in question,

but must necessarily, through the nervous sympathetic action afflict and derange the general system.

There can be no escape from this unless the teeth should be artificial, so that when they begin to buck and kick, one could simply lay them out on the shelf or slip them in his pocket and say "here you stay there until you can behave."

But, jest aside, so long as the teeth are the vital part they are, and have the vital connection they do with the general system so long will diseased teeth and diseased conditions of the mouth affect seriously the general health of the system.

Take another aspect of the subject. Suppose, which is entirely improbable, that one should loose his teeth without aches and pains, and suffer no inconvenience so far as pain is concerned. The train of evils that would necessarily follow in the form of indigestion, the loss of vital strength from the need of properly masticate food and perhaps in many other ways would show how essential to general health the healthfulness of the teeth and mouth are to the general health.

A strong object lesson and a practical one on the importance of the healthfulness of the teeth and mouth is presented in the action of the U. S. Government, enacting through congress nine years ago, a law providing and placing dentists in the army, in order through their service enlisted men and officers should not be disabled and rendered unavailable. And the further fact, that since a trial of the service named, the service is not only endorsed by the heads of the army, Surgeon General etc but there is now before Congress a measure seeking to place Dentists in the navy of the United States for the same purpose, with prospects of getting it passed.

When draining a deep-seated abscess found with an aspirator, do not remove the aspirating needle until the abscess has been freely opened. (It is allowable to replace the needle by a grooved director) H. N.—American Journal of Surgery.

A TALK TO DOCTORS.

By J. N. McCORMACK, M. D., Chairman of the Committee on Organization of the A. M. A.
Bowling Green, Kentucky.

When the American Medical Association took up the work of organization eight years ago, it found the condition of the profession in this country an alarming one. There were one hundred and twenty thousand doctors in the country, and of this number only thirty thousand had ever identified themselves with organized medicine. In other words, three-fourths, or ninety thousand of them had graduated from schools, good, bad, and indifferent, gone out, and found their locations in cities and towns and country districts, and a large percentage of them had laid down their books and ceased to study. We found there were about fifty thousand of them who had never subscribed for a medical journal, and about that number who had no books in their offices which did not antedate their graduation, and in gathering these facts I could not help but constantly have the refrain running in my mind: "God help the families dependent on doctors of this kind."

This very imperfectly represented the real condition of the profession. A large percentage of it in almost every section, except in the Northwest and on the Pacific Coast, was in poverty, and the whole of it was in disgrace so far as the public estimation was concerned. We had been powerless to secure effective legislation in the states or in the Nation, and almost helpless in enforcing such feeble legislation as we did secure. I have been connected with public work all my life. I have been a public official for twenty-nine years. Twenty-four years ago I was president of the National Conference of the State Boards of Health, and a meeting was called in Washington in the hope of establishing a national department of

health. We had five hundred delegates from the various states and cities. President Arthur was in office at the time. He brought the matter before his cabinet, and Mr. Freylinghuysen, Secretary of State, the greatest public man I have ever known, and Mr. Carlyle, Speaker of the House gave us a great deal of their time trying to revise the bill to meet the objections which might be made to it by men holding prominent positions in the two political parties. Mr. Freylinghuysen told me, before the conferences were over, that he was sorry to say that he had very little faith in our securing the passage of the bill. He said he regretted very much to say it, the country needed the legislation very much, but, said he, "I have been here in public life, in the House or Senate, all my life, and the leading men of this country have very little respect for your profession, and it comes from conditions which exist within its own ranks. When this subject is under discussion they retire to the cloak-rooms and say to each other the doctors in my community, or in my district are at war with each other, the regulars fighting the homeopaths and fighting each other,—just war and internal strife going on in the profession all the time. To show you how true that is, I live in one of the best cities in New Jersey and I know every physician in my city. I think every man there is not only a man of culture but a man of honor, but if a very small fraction of what these men say about each other to their patrons every day is true, a very considerable part of them ought to be in the penitentiary in place of engaging in the practice of medicine. It is not true," he says, "I am satisfied it is not true, but the people believe it and have reason to believe it, because they think the doctors know more about each other than anybody else does."

And that brought me back to my early experience as a surgeon. I did an ac-

*Delivered at the 27th annual meeting of the South Dakota State Medical Association held at Yankton, S. D.—From the Journal of the Minnesota Medical Association and Northwestern Lancet.

tive consultation and surgical practice for a quarter of a century, and I would be called out in consultation week after week. I would go out to a community, for instance, where there were two doctors engaged in practice in a country community, who ought to have been partners, because I believe that is the solution of the question. They ought at least to have been engaged in joint study for the advancement of their own interests and the best welfare of the community, but, instead of that, I would find usually, not always, but usually, that those two men were spending enough time every day maligning the personal character of each other to make both of them scholars of no mean attainments if devoted to study. I would go home with one of them to dinner, the one I was in consultation with the only one I would see on that trip and he would tell me his troubles, and he had none except with that one doctor. He loved every other doctor in the world as Damon loved Pythias, except his neighbor, who ought to have been his best friend. I would find frequently that he had destroyed the peace of his home telling his wife things about the other doctor that were not true, and I kept her awake at night listening to his stories. As time went on, perhaps I would be called out to meet the other one in consultation in the same community, and he would tell me the same story. Just erase one name and put in another and it would fit almost any doctor in the United States, and I found that what was going on in that little community between those two doctors was fairly representative of what was going on in nearly every section of the United States, only it got worse as we went higher up in the ranks of the profession. In the small cities we would find two factions, usually led by the two surgeons. They could get along with everybody except each other. They loved the general practitioner and the eyeman, but could not get along with each other at all. Or we found the two eyemen that loved everybody else except each other. They loved the surgeon and the general practitioner, and so on to the end of the chapter. I have failed in my purpose if I do not make you understand that widespread as this evil has always

been, it is local and strictly confined to the men who are in competition with each other.

When we go to the large cities, where there are two or three or four medical schools, the thing is intensified and we find the hotbed that has bred these things from the beginning. Until recently the medical colleges of this country have been training-schools for strife in the medical profession. The members of the faculty often setting the examples for their students. I know it was true of my school, and I was educated in one of the best in the country. Our professor never felt he had completed his lecture until he had said something nasty about the surgeon of the rival school. The first school that was ever established in this country had Rush and two other great colleagues. With only three in the faculty, they were in a three-cornered row before the first year was out that almost broke up the faculty. The first one west of the Alleghany Mountains had Dudley, Drake and Richardson as the faculty, and their troubles reached such a stage before the second year that Dudley challenged Drake to fight a duel. He accepted but failed to appear the next morning for the duel, but Richardson was on hand, angry with both, and said the faculty would be disgraced unless the duel was fought. He stepped into Drake's shoes and Dudley shot him through the femoral artery, and they soon became lifelong friends and expelled Drake from the faculty just as soon as they could have a meeting. Drake then went over and organized the next school in Cincinnati, the Ohio Medical College, and was expelled from that faculty before two years, and went down to Louisville and organized one of the greatest faculties ever gotten together on the American continent with Gross, the elder, Yandel, the two Flints, Caldwell and Cook, and they led a merry war there with each other until there happened what has been going on ever since in medical school history. We have often wondered at the multiplication of medical colleges in the United States. The cause is plain: where there was a sword they would have a row in the faculty, and the next year we would have two schools, and in a few years they

would have rows in their faculties and we would have four, and things like this have just gone on, year after year. I could give you a series of instances like this, but to show you it is not all ancient history, the first mission I was sent on in this work was to Milwaukee, a great metropolitan city, to settle a war between two schools. The peace committee were all appointed before I got there, and I had to stay two days before it was considered safe for those men to meet in my room for fear they would murder each other, for it was known they were armed for that purpose. And this in the twentieth century! Is it a wonder that we have not the confidence of the people?

I was going across the continent not a great while ago with one of the greatest men—his name is a household word—from one of the Atlantic Coast States, and I happened, in an evil hour, to ask him about a rival surgeon in the city in which he lived. He was on his feet in a minute and damned him like a Pope's bull,—in his waking and in his sleeping, in his rising up and in his sitting down, he cursed him. I was in a city not a great while ago, one of the second-class great cities of this country, and after I had spent Sunday there one of the surgeons, and he is a surgeon of ability, telephoned and asked me to take an automobile ride with him next morning. It was very cold, it being winter time. I asked to be excused, but he insisted. I did not know him very well and I could not understand why he was so anxious to extend me the courtesy, but I finally accepted. He showed me his private hospital, and it was a palace he showed me his lovely home, and then we went on, and it developed what he wanted me to take that ride for. He wanted to tell me things about a rival surgeon, about his competitor. The things he told he were not true and he knew they were not true when he told me, yet he was a Christian gentleman. I have found that religion won't keep rivals from doing these things. They will go to church on Sunday and sing and pray, and go home and tell lies about other doctors they would not tell about any other human being on earth. I am talking very plain.

These conditions have met us often in recent years, but not everywhere. We have some cities, where it would be impossible for them to exist. They are probably minimized in this city, because I find where the country is prosperous there is less of it. You go into a country where the doctors are poor and like all hungry animals they are quarrelsome. A doctor said to me not a great while ago, when he heard me talk before a medical society: "This is a black picture you paint of the medical profession." I asked, "Is it true?" He said "Yes, it is true." I said, "Then I paint what I see in the hope, by holding this picture and its results up before the profession, that the time will come when some more fortunate man, following in my footsteps, will be able to put upon canvas what I would like to paint." That time is coming. When we found this evil in the profession so widespread, so disastrous to its good name and usefulness and far more so to the best interests of the people, we were greatly comforted also to find that this was an evil not confined to doctors,—that it was a curse which comes to all of the segregated callings of men. It was worse in the clergy than it was in the medical profession, and it was bad in all the other segregated callings. There is only one vocation that has escaped it. That is the legal profession. Lawyers do not quarrel unless they are paid to do it.

Notwithstanding what I have said to you about our profession it has another side. I know more doctors than any other five hundred men in the United States. I know them in almost every county of the country, and I want to say that, barring this one fault, the disposition to envy and traduce his competitor, there is no class of men on the earth that will compare with the American doctor. They do more actual Christian charity than all the preachers and churches and charitable organizations put together, and if we can rid ourselves of this fault, as we can do by bringing about the same conditions that exist in the legal profession, we shall be irresistible. Lawyers do not come in the same class with the medical profession, to my mind, but they do not quarrel, because they live in con-

stant elbow touch with each other. They come to know each other. They become tolerant because they do know each other, and it was with this information before us that we formed this scheme of organization of which so much is being said.

Many of the best men of this country were consulted and we devoted years of time to framing it, and you will be astonished when I tell you it was simply an attempt to bring about in our profession what exists naturally in the legal profession. We felt if we could get the doctors together in every community, get them to study and work together, to eat together, to come to know each other the same excellent conditions would be brought about, as among lawyers. This plan was adopted at the meeting of the A. M. A. at St. Paul, and no man could have been more astonished than I was when the work of promulgating it fell upon me. I felt that I was less qualified for it than any other man in the country, but I had retired from practice and it was insisted upon; and, gratuitously, for three years I deserted my family and just went backwards and forwards from the Atlantic to the Pacific and from Canada to Mexico, meeting groups of doctors every day, trying to persuade them what could be accomplished by a united profession; and we surprised ourselves at the result. It spread like a prairie fire. The doctors just fell over each other getting into this organization. I did not understand it at first, but could realize it after a while. They were so tired of fighting each other they were ready to try anything that promised relief. They felt like an old gentleman down in my city when he passed his cup at the boarding-house and asked the landlady to fill it for him a second time, and she said, "Mr. Jones, which are you going to take this time, tea or coffee?" and he said, "Madam, that depends on what the last I had was. If that was coffee I want tea, and if it was tea I want coffee. I want to try something I have not tried." These doctors are ready to try anything.

Starting with twelve thousand members of county societies, we went on until now we have over seventy-five thousand doctors in our society system. It just grew to such proportions that it aston-

ished us every day. At last I retired from the work, expecting to take a trip around the world and be gone three or four years, but in a little while we found we had not accomplished anything,—that we had just enrolled a great medical army on paper without getting results. They simply joined as the average man joins the church. When the average citizen joins the church nobody would ever suspect it from coming in contact with him. An old darkey said to me down in our country when I was a boy,—he was telling me the news and he said, "Did you know, suh, that my Mars' John had jined the church?" I said, No, I didn't." He said, "He has, about a year ago." I said "Made much change in him?" He said, "Yes, a powerful change. When he went down to mend his fence on Sunday, he uster always carry his ax on his shoulder, but now he carries it under his over-coat." That is about like the average doctor when he joined the society. He put his name down, but it did not change the spirit.

My colleagues asked me at last where we had missed it in our plan. I censured myself more than I did anybody else and got time and place of the meeting of one hundred and ten societies, and I took the road again. I thought I would go out and make a study of county societies. In sixty cases they did not have a meeting, often there was nobody there at all, not even the president or secretary. In fifty counties they had meetings and would remind one of a Presbyterian prayer-meeting. A few good old faithful souls would be there who would have been all right whether they had been there or not, but those that needed it most were not there. The president would call them to order and ask for the first essay, and forty-eight times out of fifty it was a text-book paper, and in forty-seven it was not from the latest edition of the text-book. There ought to have been a new edition gotten out of the man and his text, both. But he would read his paper and the president would say, "Now, we will have the discussion. Doctor Smith, will you open it for us? We have not much time for delay;" and I heard, day after day, almost these identical words: "Mr. President, I have not

been attending regularly in the past as I should have done, but when I hear a paper like this I think I certainly will never miss another meeting. This is a very valuable paper but the doctor has covered the subject so thoroughly I really have nothing to say, and I will leave the floor for somebody else." He would sit down, and the president would call on others, and they would repeat with variations. And they would call that a county society! I heard that in great cities where they had medical schools, and colleges, and clinics.

After making the rounds of county societies I called my colleagues together and reported the pathological conditions I had found, because I considered these conditions in these societies distinctly pathological, and they asked me if I would not go out and try to explain to the profession what we meant by a county society and medical organization. I am now going to do that as rapidly as I can with you.

I find the best lot of men in South Dakota that I have come in contact with in a long time, and less organization in this state than any place I have been in five years. Your plan is defective. It is impossible for you to secure results under your present plan of organization, with large districts, embracing several counties, expecting men to come forty, fifty, or even seventy miles to a meeting. We believe there ought to be a society in every county in the United States where there are as many as four good, active practitioners, and that it is easier for the small counties to get the best results than it is in Chicago, Sioux City, or Omaha. I believe the society in Yankton County ought to be the most powerful influence that exists here, not only for the betterment of every doctor, scientifically, socially and commercially, and for the elevation of his family, but it ought to be a potent force that would reach out into every home and benefit the condition of every citizen in the county. And I am going to try to explain to you how we believe this can be done. In doing this I will give you a little personal history.

Thirty-eight years ago I graduated from one of the good schools of this country. After a four-years' course I spent two years as interne in one of our great

hospitals and then located in the community in which I was brought up and began to do surgery. I had not intended to do surgical practice, but it came to me. I was a beardless boy, and in a few months time I had a large practice. In a short time I sutured a ruptured uterus. I did not know I was doing pioneer work. In a short time I removed the head of the colon and 22 inches of the ileum and presented the specimen to the state society and, eleven years later, the result of the autopsy. In a little while I was doing surgery over half the state and in a short time it dawned on me I was not competent. I was not equal to the work that had come to me and decided to quit practice. I believed then, as I believe today, that if I continued in practice for one day without having made of myself the most competent doctor possible to my brain, that I was a criminal and that my criminality was not lessened by the fact that what I did or failed to do was legalized by my diploma or license, and the graves covering the victims. And I believe that is true of every doctor in this broad land of ours and of you. There is no other vocation like ours. There is chance for an appeal from the decision even of a court, but there is not a busy doctor within the sound of my voice who does not pass the life and death sentence on some human being almost every week of his life. There is not a source of information open to a doctor in Chicago or Berlin that is not open to every doctor in this country, and in every rural district in the United States; and to my mind every family in this country, living in the small cities or in the rural districts, is entitled to just as competent service as though they lived in one of the great cities. The time has come for the profession to apprehend its responsibilities. I felt that, and consulted my father about it, who was a man of large experience in the world, a man of travel and learning; and he said he thought I was right, but he said "Before you quit, move into a little city some where and organize a class and see if you can't make yourself competent. I can't understand why you should not." I moved into a little city where I now live, and in a little while I induced every doctor in the city and county to join in a

post-graduate school. I believed we ought to have as good a school there as they could have in Paris or Berlin, and we had competent men, men who were students. But it broke down, it was premature, and possibly I was as much to blame for it as anybody else. I was not tactful. I was a young man without experience, and made mistakes in the management of the matter, and in consequence of the failure of that school I spent every dollar that I made for ten years taking post-graduate work, either in New York, Philadelphia or abroad. I kept my family in poverty trying to qualify myself to practice medicine. I believed all the time that it was a great cruelty that I ought to have had the privileges, right in my own town, of just such a school as I wanted and we have today. We have as good a post-graduate school as there is in any of the great cities of this country or abroad, and I am here to try and convince you that you ought to have the same facilities for study in every county in this great state of yours, where there are as many as four or five or six competent doctors. We have a room fitted up with blackboards, charts, and manikins, a skeleton and a little bacteriological apparatus. We have never had a teacher from the outside. We selected our own teachers from the society and they have developed so rapidly that we have five as good teachers in that society as can be found anywhere. At first they began as timid young men, they wrote out their lectures and their demonstrations, mistrusting themselves. Now they come in before the class and begin their demonstrations without notes, and some of them will rival closely any of the good teachers in this country. I thought at first we would have to have a cadaver for demonstrations in anatomy and surgery. In a little while the young men developed a scheme which was much simpler. They found a great deal of difficulty in managing a cadaver. There is a superstition about them, and they decided to take up the different parts and organs of the body and study them systematically until they covered the whole, the four-year course, of medicine. For instance, if they were going to study the liver they found the liver of one of the lower animals, fresh from the

slaughterhouse, would answer the purpose quite as well as that from the human body. We selected our young men to demonstrate the scientific branches and the old men to teach the practical branches. They dovetailed their usefulness right into each other, and the young man, with the liver lying on the desk before him, would give a thirty-five or forty-five minute talk on demonstration, a review of the gross anatomy of the liver and its appendages, and would then be followed by a second demonstration of the physiology of the liver, and then we would have the quiz. With us the class always quizzes the teacher. Every member of the society had made the anatomy and physiology of the liver his reading course for that week, but of course those who were to give the demonstration had studied it very much more closely. We found that many of our members would absent themselves if they knew they were going to be quizzed, and they were the very one who would ask the most questions and their questions usually developed most important and very interesting points. Then we would have a little lunch, a cup of coffee and a sandwich, and adjourn.

At the next meeting they would begin with the diseases of the liver and devote about ten weeks to the study of livers. Two of the weeks would be clinics. Members would bring in cases for demonstration and diagram and study them as in the best schools. And then they would take up the kidneys and give ten weeks to that; ten weeks to the study of the skin, beginning always with anatomy and physiology; and this went on until it attracted the attention of the American Medical Association, and they have employed one of the teachers on our staff to conduct this course which is running in the Journal every week.

I believe the large majority of the doctors of this country ought to begin a course of study of that kind, or, in justice to their patrons, they ought to quit the practice of medicine.

I saw not long ago a demonstration of the gross anatomy and physiology of the spinal cord. I had returned from abroad and the young man who had the work in charge had gone down and gotten a sheep's spinal column, had the butcher

remove the muscular tissue, saw through the leminæ and in the presence of the class he lifted the posterior bone segment and began a demonstration of the anatomy, the membranes, nerve origins, roots ganglia, and the point of exit from the bony canal. I had not seen it done for a good while. I never saw it as well done in my life as it was done in that little humble class-room, and what they have done there can be done in any other county, and the time has come to take it up.

The best county society in this country is in one of our counties where there were four doctors—and they never had but the four in the county. It is a mountain county at the end of a spur of railroad, an important mining and lumber town, with a great deal of capital for a little place. I went up there seven years ago to help them stamp out an outbreak of smallpox. I stayed there for two days before I could have the doctors meet in my room, because they did not speak, most of them, and I had at last to fool them to get them. I invited each one to come to my room without letting him know that the others were to be there, because they said they would not meet together. I locked the door, and I tried to make them believe they were not only a disgrace to a learned profession, but a disgrace to humanity. I believe any doctor who is misrepresenting his brother practitioner is making a mistake—I think it is largely the fault or the lack of education in our medical school, that it is overdone. I believe the system of education in our medical schools is mainly responsible for this condition of affairs, and has always been and it will continue to a great extent until we can have the faculties of the schools believe that it is just as important to teach the young man, when going to their schools, while they are molding him and making him and burning him—it is just as important to teach him the value of harmony in the profession, and his responsibilities to himself, to the community, and to his profession, as it is to teach him embryology. Let's get rid of some of the frills and teach the young man practical things.

Well, I tried to persuade these four men that they were a disgrace to the hu-

man race, and I succeeded, and they kissed and made up right, there and I organized them into a county society, and persuaded them it was easier for them to get all of the advantages of medical organization than it would be in Chicago or New York. With four of them living in a little county-seat, none out in the country, everything was possible to them. They were competent men, just misdirected and I persuaded one of them to go to New York and take a post-graduate course for three months and the other three to do his practice, and give him the proceeds of it while he was away. I persuaded the others to go for courses in turn, one in New Orleans, one in Philadelphia, and one in Chicago. One was a surgeon of ability. He had not been able to do any surgery up to that time because he had no assistants, no cooperation from his brother doctors. And then I suggested to them, as I believe ought to be done everywhere—I don't know as it is possible in the cities, but in every small town and county—to appoint a common collector for all the doctors, take their accounts on the first day of every month, while they were small and collect them. I did not go back to that county for four years, and I would not have known that profession. I would not have known those people. It redeemed them. They carried out what I had suggested. They had an excellent little hospital. They were doing almost ideal work. Their collector found in a little while that half the people in that town never had paid a doctor's bill, and owed every doctor in the town. They found it easier to change doctors than to pay bills. These people settled up, and in a little while they were comparatively independent. After I saw what they were doing for themselves, for I am a humanitarian and an American citizen before I am a doctor, I went out and asked the bankers, lawyers and business men how this organization of doctors had affected them, and they said that great as had been the benefits it had brought to the doctors themselves, it had benefited the community one hundredfold more. They said formerly consultation was impossible, that up to the time that this work began, if they had a surgical case it had to be put on the train and sent to Cin-

cinnati or Louisville, and that limited the benefits of surgery to a few well-to-do people, because the average citizen, the small merchant, the farmer, and the laboring man has to be relieved by his home doctor as a rule, or suffer or die without relief. So I say the possibilities of all this are almost beyond belief.

I want to insist that it is not only the duty of the medical profession to do this, but that it will pay an hundredfold to do it. I am told every day that the profession is overcrowded, but after a comparative study of conditions in this country and abroad, I have found that there is not a word of truth in it. If every sick person in this country who applies to a medical man for relief got the kind of examination and treatment to which he or she is entitled, there are not enough doctors in this country to do the work. The majority of them are not examined. Half of it is slipshod practice. The majority of doctors in this country are not paid enough to make a scientific examination but a great many of them are overpaid for what they do do, when they are paid anything. In most of the homes you will find enough lacerations of the perineum and cervix, and enough hernias that ought to have radical cures done on them, and similar things, medical and surgical, to keep all the doctors busy. I was talking to a man at the dinner table to-day, a stranger, an elegant looking man, and he told me he had had a radical cure done for him two years ago, and said, "I would not take ten thousand dollars, and go back to my old condition. I would rather work for the money than wear a truss as I formerly had to."

These things are due the people, and I insist that if we could have this kind of study going on in every county in the United States, that many of these operations can be done in the small cities where there are hospitals, and that many of these simple repair operations can be done at home. I did them for a quarter of a century before we had hospitals and got as good results as we do now. I went and sat at Emmett's elbow week after week, and then went to Europe, and found they could not do them at all there in that country, that they did not even compare with the work in this country, and I began to do the work myself.

I find all over this country, even in this progressive western country, a very large part of the work is not being done. Some of you are doing it, and doing as good work as can be done anywhere, but a majority are neither doing it nor referring their cases to anybody else who will; and even where you have hospitals and surgeons who are competent, I find in a large part of this country, in the small cities and towns, that there are doctors who would rather see their cases go one hundred or two hundred miles to be operated on than see them relieved by some surgeon at home, equally competent. This is the spirit that has hurt us. This is human nature, more or less, but the time has come for us, in the name of humanity, to eliminate it so far as possible.

But it is especially in the field of internal medicine that we need to study. The surgeons have outstripped us. We have been practically at a standstill, except as to a few of the germ diseases, for the last fifty years. What do we know about the causes of insanity, the cause of neurasthenia,—that is a term to cover up a vast amount of ignorance? What do we know about the physiological or therapeutic effect of most drugs? What advance have we made since the experiments of Wool and Bartholow? I believe experimental work as to some of these things ought to be going on in every county where there are three or four congenial young doctors who can be working together.

Some of you will say we have got to look to the great cities for the discoveries, to the laboratories, but unless the history of medicine reverses itself we shall look there in vain. Nearly all the great advances that have been made in medicine have been made by doctors of the small towns and country districts, from the time of Jenner down. Priestley began his work in a hamlet in England a small place where the people tore down his laboratory and he came over here to a hamlet. I made two or three visits to his laboratory, a little place built in connection with his residence, eight by ten, where he did his great life-work. Take the great work done by McDowell and Dudley in the early days, in little towns of three or four hundred inhabitants. And

yet they revolutionized the surgery of the world, and take the work of Wyeth. I wish I could put before the young men of the country the example of such men as Wyeth, who came home from the rebel army where he was in the same company with my brothers, a ragged boy, went to Louisville where he had a very imperfect medical course, and he went down to practice in the little town where he was reared. His father was a great judge there. He got all the practice he could do, but Sherman had been through the country only two or three years before, and it was his boast that a crow had to go fifty miles to get his breakfast in any place he had been. He could not earn his salt, and went in a saw boat on the Tennessee River, and built a hut on it for cover and had a saw and engine, while he practiced medicine on both sides of the river, studied, and laid the foundation for his great life-work. He was employed to go into the swamps of Arkansas. They gave him \$75 a month the first year and then \$125 and what he could do on the outside, and he stayed there until he saved up \$4,500. He often told me that he had decided to make himself one of the great surgeons of the world, and the question with him was whether he should locate in New York or London. Think of the presumption of it! He went to New York, but did not open an office, but rented a back room and he burned the midnight oil, and after he had gone on month after month he was made prosecutor of anatomy. The academy offered a prize of \$500 for the best preparation of the hip-joint. He sent in his specimen and decided to go abroad. He went cheap and stayed in London for awhile and went to Paris where Marion Sims was. He called on this great man and presented his card, but did not make much impression on him. Sims simply said, "I will take your address, and if I will have any surgery to do I will notify you." The next morning he heard a great racket outside and found the landlady trying to keep Sims out of his room. He came in and said: "You are famous. I didn't know there was anything to you. You won the Academy prize in New York yesterday and you will be offered

the chair of surgery in one of the best colleges of the country within a few weeks." The chair of anatomy became vacant in Bellevue, and he was offered it in the next six weeks, but he went in with Sims to breakfast and met his daughter whom he afterwards married.

I could give you a hundred instances like that, like the work of the Mayos up here at Rochester, the Mecca for doctors all over the world. There is nothing like it. I heard one of the great English surgeons say recently in Philadelphia that he did not believe there was a clinic like it in the world. I believe there is need for five hundred institutions like the Mayos'. They haven't any more gray matter than many other men in this country. Huxley said it was not men with genius that did things in this world, that any man with a fair brain, good digestion, and industry could do anything than any other man could do. The reason they did that was because there were two brothers of them, with two brains and four hands working together in perfect unison, and they had the generosity, as the work went on, to call in other men in the community, until, when I was there, there were twelve brains and twenty-four hands, and now it has gone on until there are thirty brains and sixty hands, just working in perfect unison. I look upon this feature of the work there, their organized work and the unity in the profession, as being more remarkable even than their surgery, great as that is. That they could take the conflicting interests, take the condition of the profession as it existed and unify the profession of that one community, I say was more remarkable than anything they have done in surgery.

I wonder often if you men here realize what is before you, in this great western country? This region is to be almost as densely populated as China in the next hundred years. This is one of the richest lands I have ever seen. I see every section of this country year after year. I see what is abroad, and I know that there are responsibilities resting upon your profession here, great complex sanitary and medicosocial problems you must solve, and I know that you can't solve them with district socie-

ties meeting every two or three months. In fact, I find in some of the districts you meet once a year if you can get a quorum. It can't be done this way. You need weekly meetings, or meetings twice a week, where you can study and work out problems. You need consultations over your conditions. Need to study your profession, its present and its future. Need to study your local problems. In nearly every community you will find some one man that is a fly in the ointment, sometimes two. Even under our liberal laws in Kentucky we are not allowed to kill such men, and yet they are there as an obstacle to unity, and the thing to do is for the wise men of the profession to put their heads together and see how best to deal with them and bring them in. I am satisfied that, in a large majority of instances, these men can be made useful members of the profession. We have already done it in many sections of the country. They have made mistakes. They made mistakes because they were not properly trained on the subject when they were in the medical school. They had little or no instruction as to real ethics or similar matters. They were sent out as I was, without rudder or compass, and I know I made mistakes. I took offence where nobody intended to give it, and I offended people where I least thought it, because I had not been properly trained along any of those lines. If commissions to surgeons are dishonest, as I believe they are, why were we not so informed by our teachers? Wherever anything is concealed from the patrons, whether it is a commission or not, there is deceit in the transaction, and the time has come to openly assert it. If contract practice and lodge practice are wrong, as I believe they are why not tell the men so while they are in their medical course? Why not instruct them? Why should not the great teachers in our schools comment on these things and turn these men out from their colleges with correct instruction along all these lines. The time has come to do it. And you need to do very much more than that. Your legislation in this state is imperfect, as it is in most of the states, and you only need to unite yourselves to

do these things. We have succeeded in some respects in Kentucky better than many states in the Union. In many other respects we are behind you.

We have not had a quack doctor in Kentucky for ten years. Sioux Falls is as bad as Chicago, and that is the limit. Sioux Falls for a small city goes a right close second to Chicago. We eliminated quackery from Kentucky fifteen years ago and had no great difficulty in doing it. We haven't a better law than you have in this state. I am satisfied it is not any better than the law in Iowa or Missouri or most of the other states, but we united our profession to do this. Then we began to have joint meetings with the bar associations and with the newspaper men and we induced them to make a war on the quacks. It required tact to do it. It was a very difficult problem to deal with. The newspapers were deriving a large income from the advertisements of these people, but when we convinced them the quack was not an ordinary thief, that nearly all of them had criminal records, we had little difficulty in securing their cooperation. I have had a great deal of experience in administering medical laws, and I have never known a quack doctor in my life that did not have a criminal record back of his quackery. There may be exceptions to that rule, but I have never investigated any such. We got copies of the indictments against these men where they had been indicted in other states for various crimes and took them to the newspapers. We always, in dealing with a prominent newspaper, put the family physician of the editor and two of his personal friends on the committee. We have gone about these things judiciously and tactfully. I was speaking in a city of the second class not a great while ago and the profession told me they did not believe there was any way to reach the two newspapers of the city. I ask them if they could have the editors take part in the meeting that evening. They came to the meeting, and they occupied seats on the platform, and one of them spoke at the conclusion of my talk. The next morning we called on them. We had different committees appointed for the two men, the family physician of each of

them, with two personal friends, and it did not take fifteen minutes' conference with them until they were ready to exclude all the fraudulent advertising from the papers. We did not ask them to exclude Peruna and all that kind of thing. We asked them to exclude the vile things the "men only" advertisements, and the abortionists. In our state we have joint committees and we meet two or three times a year. We are not making as rapid progress as I would like, but we make a little more than they like sometimes.

I am told you have a great deal of difficulty in securing legislation in this state. The forty-one hundred doctors in Kentucky have more political power than any other twenty-five thousand men in the state. We have never asked office for ourselves. I don't know whether doctors have got to go into public life as Virchow, Pagel and Playfair did. There are ninety-six doctors in the French General Assembly this year. There are three in our Congress. Whether doctors will be forced to go into public life in a direct way, as to whether we have got to ask our leaders to make sacrifices I am in doubt. I believe it is better to meet the bar associations, from which the legislators come, and meet them in perfect manly conference to discuss these things, the purpose for which the profession exists and its altruism. Convince them of that and I believe it will be better to judiciously labor with those men than to put doctors in the legislative halls. In our state most of this work is done in the county societies. Before the nominations are made the county societies take up matters with the leaders of the two political parties, and when they select their candidates the committees wait on them to know how they stand in regard to such health and medical legislation as will come before the Assembly. They are then in the putty stage, and they nearly always feel right, if you go to them in advance. We have very little partisan politics in the profession. Our doctors have gotten educated to the point where we are far more interested in our legislation than we are in the tariff or a good many of the other questions that doctors have allowed to

disturb them. We are very much more concerned about these other things, and have the majority of our senators and representatives go to the capitol of the state with their minds already made up. I have been to every session of our legislature for twenty-nine years. We have a Committee on Public Policy. I am chairman of it. The other members do not come. They are busy practitioners. I have gone and stayed with my legislature for twenty-nine years. You ought to have one man to do all this work. He ought to be the secretary of the State Association, the secretary of the State Board of Health, and the State Board of Examiners, and you ought to give him from all these sources a sufficient salary so that he can devote his entire time to public affairs and be at the capital of your state during every session of the legislature. And that is a very small part of his work. He should go to every county on his state, as I have done over and over, and organize and help them. I know every doctor in the state of Kentucky. I have licensed every one of them, and have gone to most of their counties over and over again and worked with them. I have received no salary. The man who does this ought to have a salary, but I was a fortunate man, with a small family, and was able to give more time to this than a man can do in many states. You have men who are financially able in this state to do this, and who would probably be willing to sacrifice themselves to do it. Having been down in the country and knowing the doctors and having explained to them what we were trying to bring about, and they knowing these efforts were unselfish I would go up to the legislature, and usually found that when senators or representatives came to the capital they were all right. Occasionally the governor or some of my friends would come and say to me: "Doctor, Senator So-and-so doesn't talk right about your bills." I would say, "What does he say?" He would tell me, and say, "You had better see him." Now he is the last man I would see. That is the first thing the lobbyist would think about doing, but I am not a lobbyist. I never mentioned legislation to a senator or rep-

representative until they came to me, but I have helped them come to me many times. I would write to his county society and say, "You promised to send your member up here all right and he is all wrong. Can't you have him get thirty or forty letters from doctors and laymen by return mail, in the next day or two, if possible?" I could tell you how long before the member would want to see me, if I could tell how long it would take the letters to make the circuit and get back to him. As soon as he gets the letters he comes to me and says, "Doctor, I would like to have a talk with you." I would say, "Certainly," and he would say, "I wish you would explain these medical bills to me." I would start and read two or three sections to him and he would say, "That is all right, I am going to support your bill, and I will make a talk for it if you want me to. I am going to support it in any way I can, and, Doctor, will you do me a little favor? Write down and tell the doctors in my county I am all right. I want to go to congress, or I want to be elected judge"—they always want something—"and if you will write and explain to them they will understand it," and I write down and say to them, "If you had done your duty he would have been all right from the first; it is your fault that he was not all right."

There is no hardship that we are laboring under that is not our fault. Get on the track of any evil that exists, socially or morally, and it comes right into our own ranks. We are to blame for the whole thing. The time has come for us to realize this.

And then we have done this. We have seen that no man has ever gone back that opposed our legislation. A man that has not the sense to understand the altruism of this modern medical movement ought to be sent to school instead of to the legislature. The danger to us is ignorance in public life. Instead of half of the men we send to congress we might as well send a postal card.

What we need are constructive statesmen, men like Gladstone and Gambetta, men who can understand that the protection of the health and lives of the people, is the highest duty. And we need to

wake up and teach them these things. We should meet with the municipal business associations, with the farmers' institutes, women's clubs and labor organizations. We ought to join hands with the labor people in their work for the protection of child labor. Many of our great corporations of this country are willing to coin the brain and blood of children, babes, for the purpose of getting rich. We have gone wild on the subject of wealth in this country, and we ought to join hands with the women in their clubs in regard to the protection of women in the work they have to do. There are many of these things that are semisocial questions, but no one understands the danger to children and the danger to women from improper employment as medical men do, and we need to enlighten the public along these lines. The time has come for the doctors in every community in this country to take up this work. I have been in some communities where the profession is divided into excellent men, good men, selfish men. The average doctor in this country that is not attending medical meetings is usually the most conceited man in the community. I just want to put that before you. It is easy to understand why he is. You take a doctor that locates out in a community, a town or city,—they are just as bad in the city as country districts—he has a devoted following of men and women, especially women, who really believe he is the greatest man in the world, and women,—you know how they are with the preacher or doctor,—they have got to tell him day after day what a wonderful man he is, and if he is not meeting doctors in joint study to rub the conceit off of him, it is only a question of time until he really believes those are the most wonderful women in the world: they can recognize a genius the minute they see him and the older he gets, and the smaller, the more conceited he is. He does not need consultation or help. He says, "I don't need to subscribe for medical journals. I was educated twenty years ago. I don't go to medical societies, don't have to." We have got fifty thousand men of that kind in this country. The schools are to blame for turning them out. I give the

medical schools notice in passing, constantly that they are responsible for them. There is not a doctor practicing in South Dakota, no matter how incompetent he is, that we are not responsible for. He graduated from schools that we recognize, he was licensed under laws that we put on the statute books,—because we put every one of them there and if they are not what they ought to be it is our fault. We did not know how to draw the laws or had not the influence to pass them as they were drawn. You may sit here in your cities and towns and say, as Cain said, "I am not my brother's keeper," but in the highest and best sense, we are responsible for every death caused by those men. They are dangerous, too many of them,—source of danger to every family they wait on,—and I hold that the time has come when the leaders of the profession, in every county in this state and in every state in the Union, owe it to themselves, to the profession and to the community to go out and put their hands under these men and lift them up to the light. That is one of the problems that are before the profession, and we need to get rid of the old spirit of ostracism, of selfishness, and work out such problems. Most of the doctors in this country cannot realize that any other doctor in the community has any rights but them. They are so busy getting their own rights and privileges and all that is coming to them, that they cannot understand that other men are entitled to the same privileges. We need to begin to live and let live.

Another thing to show you the spirit in which these laws ought to be administered. I told you we had not a quack doctor in our state. We have practically eliminated criminal abortion in my state. We have appealed to the people through the public press, and had editorials printed on the subject, asking them to furnish us the proof, that we intended to take away the license from every abortionist in the state, and stop the murder of unborn infants.

We had some drunkenness in the profession in Kentucky, and we decided to eliminate that, and in the last ten years we have cited many doctors to appear before the State Board to show why their

licenses should not be revoked. When a doctor becomes a drunkard he becomes a menace to the community, and a reproach to his profession. Never has any one of these men appeared before the Board for trial. He comes right to my office and my son conducts the business when I am not there. I say these are good men. It is an infirmity with them. Frequently the man is the generous one of the family, and the rest do not drink because they are too stingy to buy the whiskey. He says, "Are you going to take my liberties away from me?" "No," I say, "we are going to try to set you free. You are a slave to the drink habit. You sign this pledge; I will put it on the back of your application." There is not a doctor practicing medicine in the state of Kentucky that did not take this oath as part of the license: "I have never been an itinerant or advertising doctor and I pledge my solemn word under oath that I will never become such under this license, if granted to me."

I say to them "If you will make this oath that you will never taste intoxicating beverages—you have got to be a total abstainer or die a drunkard—and if you do you will at once surrender your license for cancellation, you can go back to your practice." Forty-four men have taken that oath. Only one has ever violated it. We had one man after about six months get on a terrible spree. Just as soon as he was himself again he sent his license in and asked that it be cancelled. He said he was not entitled to any more privileges, he had no favor to ask, he had violated his pledge and wanted his license cancelled and he would go into some other business. I kept it three or four days and wrote him back the Board was satisfied, after a careful investigation, that it was an accident, just a mistake and that we wanted to give him another trial, and if he could control himself for six months I would return his license to him, to go on with his practice. That was six years. I had a letter from his daughter last year. She says, "You have saved my father. He was always the best and kindest man in the world, but he would have been in a drunkard's grave and now he is the most respected man in his community, and we

owe it to your law." I say, if we can take up professional work in that spirit all of these things can be done. It is difficult to do, but anything worth doing is difficult. We need to substitute the spirit of tolerance and forbearance for the old spirit of ostracism.

I know whereof I am speaking. I made these mistakes. I am talking here this afternoon as Dickens wrote David Copperfield; it is a chapter out of my own life. I say I made many of these mistakes myself, but twenty years ago I realized what it was doing for the profession, for myself, and for the people. I have never belonged to any sort of an organization, I have never belonged to lodges or anything of that kind, and I never took any vow except my marriage vow, but in the solitude of my chamber I lifted my hand after mature reflection, and swore in the presence of my God that while I lived I would never say another unkind word about a doctor, that whether he deserved it or not, whether he appreciated it or not, whether he returned it or not, I would help every one of them that crossed my path, that I never would lay the burden of a straw

across his path. I have wobbled some times, but I have tried to keep the pledge, and if I have served no other purpose in coming here this afternoon than to persuade every doctor within the sound of my voice, in so far as God permits him to do it, to go back to his community and extend a helping hand to every other doctor there, it will not be in vain. You will find more trouble with yourself than with anybody else in the community. People most generally go to church with a pitchfork in place of a rake. Everything the preacher says that is critical, they had it out to some of the neighbors instead of taking it to themselves. If you make introspection you will find you have been to blame for most of these things yourselves. You are probably the most prominent men in the community, but you are human and give way to human failings. If I have served no other purpose than to induce every doctor within the sound of my voice to himself take this pledge, and go home and live up to it, you would soon so uplift the profession of your state as to make these things a reality.

TUBERCULOSIS AMONG CHILDREN

By SAMUEL A. VISANSKA, Ph. G., M. D., Atlanta, Ga.

Visiting Physician to the King's Daughters' Hospital, Hebrew Orphans' Home, Woman's Co-operative Home, Children's Dispensary, Woman's Board City Missions.

It is with a somewhat complex feeling that I appear before this audience today, for while I am deeply gratified at the honor done me by the learned gentlemen who compose the committee in charge of this most useful and necessary exhibit, I am at the same time appalled by the knowledge of the many difficulties which confront me in attempting to speak of tuberculosis in children. In a talk of this kind it is impossible to more than indicate some of the evident facts regarding this dread disease, but even if unlimited time were allowed me I would have no specific in the way of a cure to offer any more than is possible in the same disease in adults, and in treating

the subject as it touches children there are so many points of close similarity to the adult case that I cannot hope to bring you anything that is strikingly new. But while it is true that even the most advanced science of the day has learned comparatively little about curing pronounced tuberculosis either in the child or the parent, yet there is certainly a broad field and a common meeting ground for the scientists, the physician and the layman in considering the many methods of preventing the ill in the first instance and of recognizing it when it does appear in its very incipiency. That is the time when it can be fairly and squarely met and greatly alleviated.

held in abeyance, as it were, until Nature has an opportunity to intervene and in most instances bring about a complete cure. I say "Nature does this for man cannot do it; no drug is ours which will cure consumption and yet we can do so much more toward that end today than we could even a few years ago, and with the proper help of the public at large we can do so infinitely much to prevent it that methods of cure need not be our greatest concern when prevention is so much easier, so much more sensible and has rules so much more fixed and positive.

To begin at the very beginning of the subject perhaps it might be well to tell you what we mean by tuberculosis, as I think the public is misinformed, many persons believing that it is a so-called "lung trouble"—nothing more. But this is very often not the case—especially in young children and infants. Tuberculosis is an infectious, communicable disease due to the bacillus tuberculosis of Koch, so named in honor of the discoverer of the germ; it may be local or general and may involve any organ and almost any structure in the body. It is to be more feared than any epidemic of which we have knowledge for it is confined to no season, no locality and is no respector of class or persons. It, however, may be often prevented altogether and so in this connection I suppose I may be allowed to quote the well known remark of Dr. Oliver Wendell Holmes—himself a physician of high standing as well as a man of letters and a forceful thinker. Dr. Holmes, on being asked the receipt for longevity said that to his mind, the person desiring to assure himself of a long life "must advertise for long-lived parents before he was born." Now, while there is an element of humour in this remark it is also full of the deepest truth—in its literal translation or interpretation it means that only healthy people should marry and bring offspring into the world. I feel most urgently on this subject myself and because my general practice is so much among children and because I see so much suffering among these innocent little ones which has been brought upon them because of disease existing in the

parents I would advocate most strongly that there be state and even national laws which shall require that all persons applying for a marriage license be compelled to show a clean bill of health—and I would require that this be furnished not by a family physician whose interest or sympathy might bias his judgment, but by civil authorities—local boards of health for instance, being required to appoint regular marriage examiners. I know this is a Eutopian idea and I fear it will never be accomplished in our life time, but I am the more and more impressed with its urgency not only as a precaution against the transmission of tuberculosis but against other diseases as well. This I shall emphasize a little later on.

PREDISPOSING CAUSES.

In tuberculosis there are certain predisposing causes which may be called both general and local. General predisposition may be inherited directly from the parents who have themselves suffered from tuberculosis, or from those who in consequence of syphilis, alcoholism or any other constitutional vice have transmitted a feeble constitution to their children. Inherited predisposition is exceedingly common and really signifies a diminished resistance of the cells of the body to tuberculous infection. General predisposition often results from the child's surroundings in so far as they have affected the constitution and lowered the general vitality. Children reared in the city, either in institutions or in crowded tenements are more frequently affected than those who have the advantage of more healthful surroundings. Repeated attacks of bronchitis, pneumonia or pleurisy and chronic catarrhal inflammation of the mucous membrane of the nose or pharynx frequently associated with enlarged tonsile or adenoid growths of the pharynx might be included in the list of local causes to this disease. In a very large number of cases tuberculosis results as a sequel to one of the infectious diseases, particularly measles, whooping-cough and influenza.

CAUSATION.

No age is exempt from tuberculosis.

It was formerly believed that the disease was rare in infancy, but recent observations have shown that, although its form is somewhat different it is really more frequent in infancy than at any period of later childhood. Statistics taken chiefly from two institutions in New York where children up to four years of age are received, give the following results, the diagnosis being confirmed by autopsy in nearly every case under two years of age. Under three months five cases, three to six months, 21 cases, 6 to 12 months, 31 cases; 12 to 18 months, 29 cases; 18 to 24 months, 10 cases; two years to five years 32 cases; over five years 15 cases making a total of 143 cases observed and classified. From this it will be seen that the first year furnished 57 cases, the second 39 and the succeeding three years only 32 cases. While a student of medicine I was taught that an infant was not born with tuberculosis; that there was a tendency or predisposition to the disease which was transmitted to it from tubercular parents; many good authorities still hold to this theory, but it has been proven by the report of at least seven complete and well authenticated cases that intra-uterine infection or the direct transmission of tuberculosis from the mother to child, was an established fact. Another urgent reason for those marriage laws which I have already mentioned! In most of the cases of congenital tuberculosis the mother has been suffering from the disease in an advanced form and the child is either still born or dies soon after birth. Intra-uterine infection is also highly probable in many cases where children of tuberculous mothers develop the disease during the first few months of life although these same children may show no evidence of the disease at birth. Holt, a famous specialist on children's diseases reports nine cases which died of tuberculosis during the first three months. One of these cases was that of a child but twenty days old.

METHODS OF COMMUNICATION.

Tuberculosis may be communicated to children in the same general ways that it is to adults although in the child it may take a different form. One of the ways

of its communication is by inoculation as in the case of a bite from a person suffering from the disease. Several of such cases being on record.

One of the most striking instances of direct infection is that reported by Reich a physician and scientist of note. He declares that in a town of which he knew, with a population of about thirteen hundred inhabitants the obstetric practice was divided between two midwives. Within a period of fourteen months no less than ten infants who had been delivered by one of these women died of tubercular meningitis. In the family of none of these babies was there a history of tuberculosis. On closer investigation it was found that the midwife attending these births was suffering from pulmonary tuberculosis and in fact, she died of this disease. It was her custom to remove the mucous from the mouth of the newly born infants by direct mouth to mouth aspiration and then to establish respiration by blowing in the infant's nose. The other midwife used the same methods, but was healthy and not a case of tuberculosis occurred in her practice.

The following case of infection has recently come under my own notice; Two little girls were much in the room and about the bed of a young woman who was suffering it was afterwards learned, from pulmonary tuberculosis. Within three months of that time and within six weeks of each other both died of tubercular meningitis. From this it will be seen that the disease in its pulmonary form can be and was transmitted to these children in the brain or meningeal form. Examples might be multiplied indefinitely where children have contracted the disease from a close exposure to nurses or other persons suffering from the disease and living in the same household. The prevalent habit of kissing children is, of course, one means of infection and it cannot be too strongly condemned. No stranger should ever be permitted to kiss a child and yet we see it done daily on our city streets—the time will come when this will be considered a relic of barbarism and that time cannot be too soon. Apart from accidental inoculation the tubercu-

lar bacilli may gain entrance to the body either through the respiratory or the alimentary tract, or through the skin; the last named, however, being so very rare that it need only be mentioned. In infancy and early childhood infection is most frequent through the respiratory tract; that is to say it is breathed into the lungs from the atmosphere. The source of the bacilli in the air which is thus taken into the lungs is mainly from the sputum of patients suffering from the disease in its pulmonary form. This sputum dries and becomes part of the dust in the street, in the railroad car or in the house or even the hospital if it is not immediately destroyed. As has been explained and demonstrated here this sputum should be passed into a paper vessel of some kind which is immediately destroyed or into a vessel filled with a powerful fluid disinfectant. The child with its delicate organism and its susceptibility to disease is much greater than the adult and it readily accepts infection from this source. The child, too, is subjected to yet other sources of infection from which the adult is protected. It may take the bacilli into its alimentary canal with milk from tubercular cows or from a tuberculous woman. That infection can also be traced to the meat of tubercular cows has also been proven conclusively. Prof. Koch's belief to the contrary and this subject was settled for the present at least by the International Tuberculosis Congress held at Washington last fall. The purity of the milk and meat supply, therefore, becomes of the greatest importance. It is also possible for flies to carry the bacilli from one point to another thus infecting food in many forms.

LESIONS.

There are so many lesions in tuberculosis that I shall tire you by trying to mention all of them or by describing the many forms these lesions take on, but shall simply name some of those most generally known. There is acute miliary tuberculosis; tuberculosis of the cervical glands, which was known as scrofula; tuberculosis of the larynx, trachea, intestines, peritoneum and of the lungs and cerebro-spinal system—

the latter being one of the forms of deadly meningitis. Tuberculosis of the joints is essentially a disease of childhood and is rarely congenital, being most uncommon in children under one year old, but this form of tuberculosis is in many cases attributable to the element of an hereditary tendency.

SYMPTOMS.

It is most imperative that the presence of tuberculosis in any of its forms can be detected as soon as possible for in this early diagnosis depends the whole future of the case. It is impossible, however, for me to tell you all the symptoms of this terrible death-dealing disease, yet I will state when a healthy child begins to lose its interest in its surroundings, does not notice its toys or care to play, is peevish and loses its appetite; when its digestion seems impaired and it loses flesh and strength, has a hectic flush or an irregular rise of temperature, generally in the afternoon, together with a rapid pulse, irregularity of the bowels, accompanied in severe cases with sweating, shivering, vomiting etc the parent may at once become suspicious. The cough, which is almost a constant symptom of pulmonary tuberculosis may be absent at first even though the other symptoms mentioned are present.

GENERAL PROGNOSIS OR OUTLOOK.

Although it is hard for a physician to be obliged to confess it still experience shows us all that the outlook for a young child with general or pulmonary tuberculosis is always bad. If the disease is confined to the cervical or neck glands the child is not usually in immediate danger, for some times spontaneous cure may result or the glands may even be removed, but too much stress cannot be laid on early recognition of these symptoms and as speedy medical aid as it is possible to be procured.

PROPHYLAXIS.

It is so imperative to enforce methods of prevention that I am impelled to stress that point again even at the risk of repeating in a general way what I have already tried to impress in special cases. The prevention of tuberculosis must have constant reference to its cause. The

first essential is the destruction of the tubercle bacilli wherever they exist and this can best be done by destroying the sputum as I have already outlined. But in the case of children it is imperative that they be protected from useless exposure to the disease. A tuberculous mother should on no account nurse her child and a wet nurse should be free from tuberculous taint. In fact no nurse or care taker should be employed about children if there is any tuberculosis present in the person or if they have ever had the disease. If any member of a family has tuberculosis a young child should on no account be kept in the room and if possible it should be removed from the house, and of course no child should be allowed to sleep in a room occupied by a person with tuberculosis and the rule already given about kissing applies with redoubled force to tuberculous persons in their contact with children. There is also great danger to a child from the use of indiscriminate drinking cups in schools, railroad trains or any public places while to use any food vessels of a tuberculous person is a very real and present danger. Such a person should have a special set of dishes or the utmost care should be taken to boil those which he has used.

Cows, whose milk is used for children should be under regular veterinary inspection and should have passed the tuberculin test. In any case where the slightest doubt regarding the health of the cow exists or where the source of milk is unknown the milk should be heated to a temperature of 155 degrees Farenheit for thirty minutes. In the case of delicate children or those of tuberculous parents or having tuberculous relatives every thing should be done to fortify them against the disease. They should be kept under more or less constant medical supervision as regards their manner of life, their clothing, nourishment etc. Every attack of bronchitis, broncho pneumonia or intestinal trouble should be watched with the greatest solicitude. Exposure to measles or whooping cough should be especially avoided. Parents should remember that watchfulness and care does not mean the coddling of children or the keeping

them in the house most of the time. Care and ordinary precautions are necessary but I would urge that mothers do not make hot house plants of their little ones. All children, especially delicate ones, should live as much as possible in the open air and every form of sport encouraged which tends to keep them out doors. Overheated houses are one of the most prolific agencies in perpetuating if not in creating a delicate condition of health in children. Plenty of fresh air in sleeping apartments should be insisted on at all seasons and especially in the case of children with a tuberculous tendency. To these children also, as well as to healthy children prompt attention should be paid to all catarrhal troubles of the nose and pharynx, and in the cases of enlarged tonsils or adenoids they should be removed as these delicate membranes form a most favorable surface for the growth of the tubercle bacilli.

It should be a matter of civic pride to provide plenty of parks and breathing spots for children and these should be patronized most liberally. Then, too, roof gardens in the slum districts should be provided where space is not available for parks. These gardens would cost the owners but little requiring merely high fencing and a few benches and before building permits are allowed provision should be made for just such roof gardens for use of the children in the slums.

TREATMENT.

The general treatment of tuberculosis might be told in a very few words for Nature has provided the very best remedies which science can suggest. These remedies are fresh air, sunshine and nutritious diet consisting principally of milk, eggs and beef according to the age of the child. If these same remedies are necessary for the cure of the disease in adults they are ten fold more necessary in the case of children. Without these remedies there is little hope for children with pulmonary tuberculosis. The same region that is beneficial to adult cases usually agrees with children except that in the latter cases a warm, rather than a cold climate is desirable. A child must be where he can be kept out of doors most

of the time—at least seven hours a day in spite of fever, cough or other acute symptoms. For the most acute cases where children are confined to the bed the largest, best ventilated, sunniest room in the house should be reserved and at least one window should be open the greater part of the time. As this complete and accurate exhibit will show you the best method of preparing rooms, tents etc. I shall not describe them here but will simply emphasize what I have tried to elaborate in this brief talk and what the main purpose of this exhibit as well as the concentrated effort of the physicians and enlightened laymen are trying to impress on you at all times. Tuberculosis is first of all preventable; it can also be greatly alleviated and in most cases cured by early recognition and it is the highest duty of an advanced civilization to combine in a mighty effort

to produce a race of human beings free from the taint of any disease, but perhaps most and best of all, free from tuberculosis whether it be contracted by careless contact, by unclean streets and houses or by direct transmission from diseased parents. As a physician and a private citizen I cannot too highly commend this splendid exhibit of what science has done to educate the public on these points nor can I urge the people of my own city too strongly or too earnestly to study what is here offered them, to bring their friends to study with them and then together and individually to apply what they have learned for the benefit of the whole race, and especially for the protection and preservation of the little children whose helpless bodies as well as whose immortal souls are intrusted to their keeping.

DIABETES MELLITUS.

By J. B. HUGHEY, M. D., Greenwood, S. C.

The onset of this disease is insidious, with rare exceptions, and is not recognized by the patient. Very many cases are not even suspected until some other symptoms than the glycosuria attracts attention; such as excessive thirst, unusually large flow of urine, unusual weakness and even impotence. Rarely some complication calls attention to it, as balantitis in men and pruritus vulvæ in women.

The first symptoms in children are apt to be incontinence of urine, nervous irritability, and great thirst. Strength, flesh and color are often retained to near the end. A gain in weight and height may even occur without any cessation of the disease.

In women premature menopause is relatively common. The urine in this disease is most often found to be of pale color, the reaction is sometimes acid; the specific gravity, except in some rare instances, is very much increased (1025 to even 1050).

The odor is sweet due to the presence

*Read before August Meeting, Greenwood County Medical Society.

of glucose which may amount to or even exceed eight per centum. Albuminuria exists in about one-third of the cases of Diabetes Mellitus, but is seldom symptomatic of Bright's disease. It is quite exceptional in Pancreatic Diabetes; but a little more frequent in the traumatic form, and is most frequently met with in Diabetes with obesity. In those cases where the albumen gradually replaces the sugar, the prognosis becomes extremely grave.

Special symptoms may be divided as follows, (1) Those of the nervous system, (2) those of the vascular system, (3) those of the respiratory tract, (4) the digestive apparatus, (5) the urinary tract, (6) the skin and locomotor apparatus and (7) Diabetic Coma. The most common secondary nervous lesions are certain peripheral neuroses causing abolition of the knee-jerk. Other neurotic symptoms are pain and, rarely paralysis. The neuralgias of Diabetes Mellitus are often very painful and difficult to relieve. It is quite a problem sometimes to decide if there is not actual tabes.

There is, besides the pendo-varieties, a relation between true tabes and true Diabetes Mellitus, through the fact that these diseases occur in various persons of the same family, in consequence of an hereditary nervous taint, both appearing sometimes in the same subject.

Organic heart troubles are not commonly found in this disease, except in very delicate constitutions and obese subjects.

Arteriosclerosis is, however, very common.

The most frequent complication in the respiratory tract, is pulmonary phthisis of bacillary form. Pneumonia is a very grave complication, but fortunately is rare in this disease. The digestive tract has its disturbances in red and tumefied gums, together with more or less severe pharingitis. The stomach is generally dilated, but digestion is apparently accomplished easier than would be supposed, in view of the large quantities of food taken. There is generally more or less gastric and intestinal catarrh, and also enlargement of the liver.

Urinary complications are very common. Those due to previous morbid conditions, as gout and the diabetic dyscrasia, cystitis is frequent. The renal lesion most common in this disease, affects exclusively the zona limitans invading the straight tubes of Henle, sometimes likewise the collecting tubes (Strauss). The location may be in the ascending or descending branch of the loop. From this anatomical situation, Ehrlick thought the sugar so transformed was contained in the urine. Strauss, basing his opinion upon the fact of the lesion being localized in the zona limitans in the neighborhood of the capillaries interposed between the uriniferous tubules, believed the sugar comes from the blood of these capillaries. This hypothesis has some support by certain experiments on rabbits.

Complications involving the skin in this disease are pruritus, eczema and gangrenous lesions. The pruritus may exist without any appreciable lesion; it affects principally the genital organs, the glans penis in men and the vulva in women, where it is much more painful. It gives rise to itching and burning sensations producing loss of sleep and various nervous

symptoms. Sometimes it occurs early in the disease and forms one of the principal symptoms in revealing it. While the eczema is most often situated in the genito-urinary regions, yet it may become general over the body. Gangrene most often follows furuncle or anthrax, but may and does sometimes appear primarily without any previous infection.

Diabetic Coma is but the deep poisoning or intoxication of the system by the decomposition of the various acid formations in the blood.

While Diabetic Mellitus, in the great majority of cases, progresses in a chronic condition, yet there are some rare cases where the onset is sudden and progress rapid.

DIAGNOSIS:—A well-defined case of Diabetes Mellitus can scarcely be mistaken by an experienced physician. The general symptoms coupled with the continued Glycosuria are sufficient generally to establish the diagnosis. The examinations of urine by Fehling's, Haine's and the Bismuth's tests are sufficient for all practical purposes. If, however, you are able to do a full analysis or have it done, of the various constituents, percentages, etc., it will add to your confidence in treatment, but little in practical results.

ETIOLOGY.—From statistics it is shown that this disease is most prevalent between the ages of 50 and 60 years. It is possible, however, that owing to the difficulty and uncertainty of determining the exact beginning of the disease, that it often begins and has been in progress long before the 50 years. In my experience of three true cases, two of them were at least 55 years of age when the disease was discovered—the other was about 25 years old.

The disease is more prevalent in some localities; is very common in Sweden and a veritable scourge in the Island of Malta. It is very common in the Jewish race wherever they may reside. The disease is relatively rare in childhood, there being no cases on record until during recent years. The experience of these years, however, prove the disease not so rare in childhood as formerly supposed.

In adults, men are much more likely to be attacked than women; but in childhood, sex seems to have no influence.

There is little room for question, that the Diabetic predisposition is hereditary. Such as uric-acid diathesis, obesity, gout and all neuropathic affections. A too exclusively starchy diet and the abuse of wines and ciders are predisposing causes.

Nervous affections are certain causes of Diabetic Mellitus, it is so often found in persons who have suffered much from worry and anxiety. It is to be classed among the neuroses as its varied phenomena seem to result by reflexes from the nervous system. The disease obviously arises in the sympathetic chain which controls the secretory function of the kidneys. Traumatism of the head is claimed to be the cause of the disease in 20 per cent of all cases. It is possible this may be too large, but it is established by certain statistics. Lesions of the brain give rise to the same results. It is about admitted that Syphilis is not a cause of Diabetes, except through its remote effects by producing lesions in the brain cord. Disease of the Pancreas, is, without doubt, a sure cause of Diabetes Mellitus. The pancreatic form is always very grave. The disease never fails to appear after complete removal of the gland, or after sufficient diseased condition to cause suppression of its secretions.

Atrophy is the most common diseased condition found in the pancreas in connection with diabetes. Cancer of the pancreas is the most common cause of the acute form of Diabetes Mellitus. Contrary to the old opinions, experimental physiology has demonstrated that hepatic lesions are not a cause of true Diabetes Mellitus. The duration of the disease can safely be said to be several years. The three cases of true diabetes falling to my care lasted—after discovery—8, 6, 2 years respectively. In each case, however, the patient expressed a knowledge of the symptoms having been in existence for several years previous.

The termination in true Diabetes Mellitus is almost always fatal. But the mild cases often allow the patient to live to a good old age, unless carried off by some complication. In such cases, if the patient is intelligent and docile, there are few chronic diseases in which proper care and attention are more beneficial

than in this.

TREATMENT:—This is a disease in the treatment of which I wish especially to warn you not to fall into a routine form of treatment. The first thing to be done is to individualize your patient and make frequent and careful examinations of that individual. After you have outlined a plan of treatment, watch it carefully as to results, and do not hesitate to modify the same when farther experience and results seem to demand it.

In the treatment of this disease we at once admit that while drugs have their place and are often of great assistance, yet diet plus hygiene is the most important factor. As in this disease the power to assimilate sugar is diminished, it is important to limit—as far as possible—the starchy forms of food.

A diet of meat, fish, eggs, green vegetables, salads, cheese, nuts etc is advised. The effect of these, however, should be carefully watched. As too great quantity of meat should be avoided and eggs also cannot be too recklessly used. A theoretical diet cannot often be carried out. Some patients will not thrive on even a liberal diabetic diet; old people especially cannot be treated too rigidly as to diet. The younger the patient—as a rule—the more rigid you may be with diet and with more hopes of prolonging life. It is good practice, for three or four times a year, to give strict diet with absolutely no carbo-hydrates for two or three weeks; as in this way the metabolic faculty for sugar, which has been injured, is given a strictly physiological rest so conductive to recuperation. In saccharin, we have a good substitute for sugar, and it can be taken for years with impunity.

We have various substitutes for bread offered through the trade, but each is found to be more or less a failure. Some forms in some patients seem to agree well for quite a long while, but sooner or later they are found to become distasteful.

The ideal bread, when it is possible to use it, is Graham bread. The scales should be often used to watch the body weight and the urine measured and tested.

In bad cases we should be very careful to avoid the abuse of albuminoids, as

they lead surely to more rapid accumulation of acids in the blood and diabetic coma is but an acid intoxication. After diet, comes the use of hydrotherapeutics, systematic exercise, fresh air and sunshine.

Opium, antipyrine, salol and the salsalates are all of service at some time during the disease. They each lessen the excessive polyuria and reduces the amount of sugar. Jambul is a drug whose therapeutic action is but little known, yet it will give better results in this disease than any drug I have used. I use the powdered seed in doses of 20 to 40 grs. per day. In the future I shall not

hesitate to use 60 to 90 grs. per day.

Alkaline mineral waters should be given freely unless patient is very much debilitated.

When coma is threatened, alkalies and iodides in full doses should be given to prevent the same. When it comes on, however, saline infusions should be used, intra-venous when severe and acute. Diet strictly skim milk. Elimination of the poisons should be assisted by hot packs and saline purgatives. If heart is feeble or irregular, give full doses of Digitalis, Spartein or Ergotin as indicated.

SPINA-BIFIDA, WITH REPORT OF A RARE FORM.

By J. H. TAYLOR, M. D., Columbia, S. C.

By J. H. TAYLOR, M. D., COLUMBIA, S. C.

Generally speaking Spina-Bifida is characterized by a congenital fluctuating tumor, originating from the spinal canal, usually in the lumbo sacral region, varying in size from a nut to that of a child's head and covered usually with thin translucent skin, however, it may be normal in appearance or very vascular. Lending especial interest to the subject is the fact that this tumor may project anteriorly and be entirely or partially concealed from the examiner's view. It is just this very intensely engaging feature that I beg to call your attention to in the case to be reported this evening.

ETIOLOGY.

The condition being of congenial origin it is of interest to trace it embryologically in the light of our knowledge of this subject. The medullary groove is formed in the earliest period of embryonic life by the elevation of the epiblast into ridges on either side of the median line called medullary folds. Now, through the fusion of these folds the medullary groove is inclosed, forming the medullary canal. On either side of this canal are cell masses or primitive vertebral plates, which by their development and fusion form a tube surrounding the lumen, and this tube constitutes the beginning of the

vertebral column, as yet membranous and unarticulated. In this, at the beginning of the second month, arise on either side cartilagenous areas from which gradually are evolved the vertebral bodies and arches. The latter are completed posteriorly by fusion in the midline of the opposite laminae, commencing in the upper dorsal region, the lumbar region being the last to close over; consequently, it is here the defect most frequently occurs. By the fourth month the individual vertebrae are completely developed and later the cartilage is replaced by bone. In very rare instances the malformation involves the lateral masses or the bodies of the vertebrae permitting the protrusion to appear anteriorly or to the side. If the defective closure of the vertebral canal is such as to expose the bodies of the vertebrae, covered with membrane at the bottom of the cleft, the malformation is ordinarily termed Rachischisis. However, when at the site of the cleft there is a protruding sac the malformation is designated as Spina-Bifida. Differences in extent of the actual malformation give rise to the two forms of Rachischisis.

1. Rachischisis Totalis in which the arches have failed to fuse throughout and the bodies of the vertebrae form a shallow groove opening posteriorly and covered usually with a thin transparent

membrane.

2. Partial Rachischisis, involving as a rule the sacro-lumbar or upper cervical region, these normally being the last to close over.

The Spina-Bifida proper, or protruding sac, is designated according to the structures that go to form its walls, as:

1. Meningocele;
2. Myelomeningocele;
3. Myelocystocele.

According to its site we have:

1. Cervical;
2. Dorsal;
3. Lumbar;
4. Lumbo-Sacral;
5. Sacral;

Instances very rarely present where the sac projects anteriorly from the spinal canal. (Spina-Bifida Anterior) and again, there may be no external tumor whatsoever, the site of the opening being indicated by a depression or, what is most interesting, a tuft of long hair, which undoubtedly accounts for the cases we hear occasionally of human beings possessed of tails.

1. MENINGOCELES: In this type there appears a smooth globular tumor covered with normal skin as a rule and attached by a slender pedicle; within is a cavity lined by Arachnoid, in which fluid collects.

2. MYELOMENINGOCELE: This, the commonest form, usually appears as a tumor varying in size from a nut to that of an apple, increasing in size gradually. Externally there is a wide base and a somewhat flattened contour. The covering is a smooth or scar-like skin; it may be deviated, however, of skin on the summit and covered there by a reddish tissue resembling mucous membrane. The sac, often multilocular, is composed of the Arachnoid and the Pia, while nerve roots the cord or the cauda-equina, usually traverse it or are attached to its sides.

3. MYELOCYSTOCELE: These originate from the accumulation of fluid in the cen-

tral canal of the cord, with resulting dilatation to form a cystic tumor of a portion of the cord with its connective tissue envelope. They occur in the majority of cases in the lateral clefts of the vertebral column, and are covered by normal skin as a rule.

The origin of Rachischisis is to be found in defective development and hypoplasia of the medullary folds which form the medullary groove over which the vertebral arches unite. As to what induces this abnormal growth and lack of growth, we know nothing, and facing here one of the darkest corners of our science, we cross into the realm of conjecture. The symmetrical distribution of the arrested development would suggest strongly a primary agenesis, predetermined in the germ. However, extrinsic influences may check development or destroy parts already formed. Possibilities of this type are:

1. Toxic Substances (Hertwig);
2. Pressure from without;
3. Amniotic Bands;
4. Inclusion of foetal membranes;
5. Local inflammatory processes (Virchow.)
6. Persistence of a connection between the medullary canal and the epiblast.
7. Excessive stretching of the wall of the medullary groove through bending of the axis of the embryo;
8. Disproportion between the growth of the canal and the cord (Von Recklinghausen.)

SYMPTOMS.

Many Spina-Bifida give no symptoms other than the presence of the tumor, while in other instances there is paralysis of the bladder or rectum and paralysis or sensory disturbances of the lower extremities;

Associated there may be Hydrocephalus, club foot, or other defects of development. If the opening in the spinal canal be large the tumor may dilate with strong respiratory effort, as in crying or

coughing. Pulsation is rare.

Strong pressure on the sac may increase the tension of the fontanelles, and, indeed, produce convulsions and signs of cerebral compression.

DIAGNOSIS.

The diagnosis is to be made from congenital cysts which are usually lobulated, and fatty tumors of the spinal cord which are not translucent. However, a congenital fluctuating tumor, where tension varies with posture and expiratory effort, is certainly a Spina-Bifida. The differential diagnosis between the varieties of Spina-Bifida is of prime importance bearing directly on prognosis and treatment. Sometimes the differences are sufficiently great to warrant assurance, but often only operation will reveal the true character.

MENINGOCELES.

Are located almost invariably over the sacrum and present the smallest pedicyles and clefts and a covering of normal skin. There is slight or no increase in tension in the fontanelles when the tumor is pressed upon, and very rarely do any trophic disturbances or other deformities appear.

MYELOMENINGOCELE.

Show a broad base and irregular form, with thin and often ulcerated covering. Moreover, by illuminating the sac shadows of the cord, nerves, and septa may be identified. Deformities and paraplegia may accompany this type.

MYLOCYSTOCELE:

In this type we note the most prompt and marked response to pressure in the fontanelles; often sensory disturbances in the lower limbs and trophic disturbances of the bladder and rectum occur. Deformities quite frequently are present, and the overlying skin is very apt to slough.

PROGNOSIS:

The usual course is towards death, which commonly happens within six eight months from ulceration into the sac with resulting loss of cerebral fluid and septic meningoitis. Very occasionally the vertebral arches finally coalesce, closing off the tumor and producing a spontaneous cure; or, following ulceration and rupture, the resulting cicatricial tissue may produce a spontaneous cure. Paralysis of the bladder, with urinary sepsis, is a constant danger.

The Meningocele gives the most favorable prognosis, with the myelocystocele next. Death from hydrocephalus is frequent, following operative measures. Shock, meningoitis, or hydrocephalus claim about fifty per cent of the cases coming to operation.

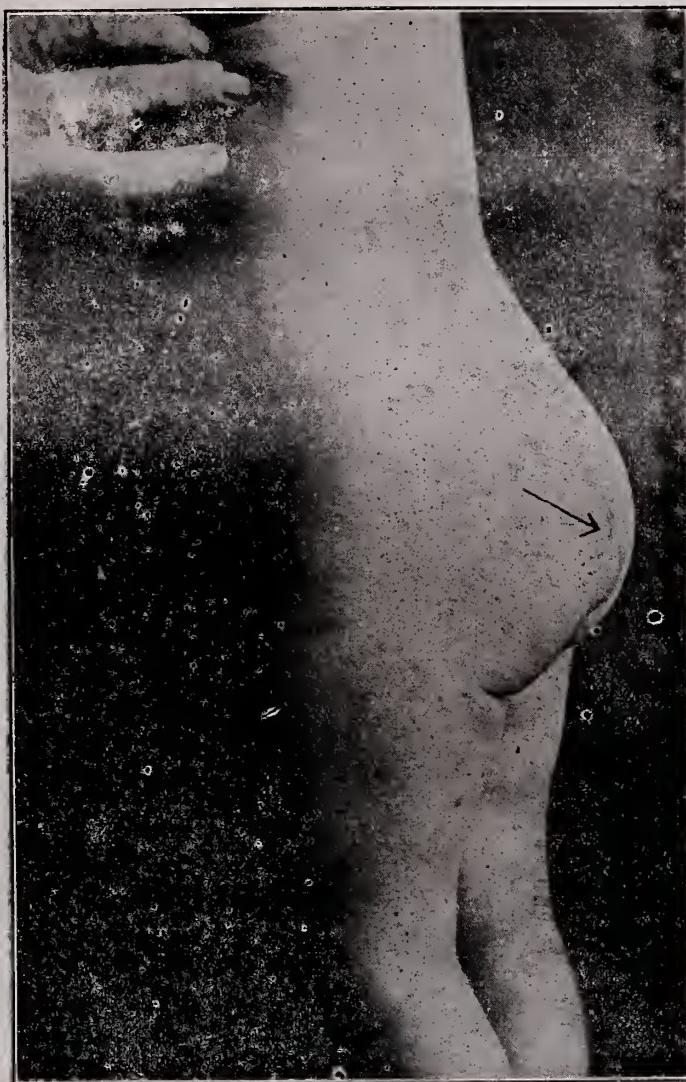
TREATMENT:

In the inoperable cases palliative measures are indicated until death in a few weeks claims the weakling. The surface is to be kept clean and protected from undue pressure; aspiration of the tumor may be resorted to when possibilities of future surgical relief obtain. Otherwise it is certain sooner or later to produce sepsis and death. Morton has adopted to use in this condition, with a mortality of 15-30 per cent, the principle upon which irritants are injected into the sac of a hydrocele. Where the radical operation is contraindicated, he injects gradually a solution of iodin, iodide of potassium, and glycerine, which setting up an acute inflammation, is followed by adhesion of the walls. Of the operable types the meningoceles present the most favorable features for a cure. In the myelomeningoceles and myelocystoceles the majority of cases are hopeless. Interference may be undertaken to prevent or cure ulceration or rupture, certainly the condition of the patient can be rendered no worse.

All of this leads up to the case presented for your consideration, and, I hope, interest.

June 23, 1907 I was called in consultation by Dr. J. W. Eargle, of Lexington county, to see a child two and a half years old, native of South Carolina, family history negative, a younger brother normal in every respect, one year old. At birth there was noticed at the lower

size was first noticed the child had the first attack of gripping pain in the abdomen, with enlargement. The pain was paroxysmal in character and accompanied by screaming and other evidences of intense pain. There was no rise in temperature, no bowel disturbance and, after



SPINA-BIFIDA.

end of the spine a reddish blue spot, slightly elevated, about the size of a quarter. During the first year there was no change in the size or appearance of this tumor. About the end of the year it began to increase in size and has gradually enlarged. Shortly after the increase in

about four hours, the abdomen gradually grew smaller and the child returned to the normal. Throughout the attack there were frequent passages of urine in small amounts. Following this these attacks come on about once a month and would last from four to eight hours. At

these times the tumor was said to increase perceptibly in size and the abdomen swell. Since October 1906 there has been no attack up to the afternoon of the 20th she struck the tumor a severe blow in falling and June 21st, 1907, about 8:00 a. m. the next day, after a perfectly

of the abdomen. There were frequent and painful passages of urine in small amounts. These symptoms continued unchanged and unabated up to June 23rd, at middav, when I saw the case with Dr. Eargle. She was then standing in her crib, apparently happy and comfortable.



SPINA-BIFIDA.

normal night, the child became fretful, would cry at intervals, while the abdomen was noticeably enlarged. A little later the paroxysms of pain supervened, coming on about every ten minutes and increasing in duration and severity, accompanied by progressive increase in the size

Upon being stripped there presented a well nourished female, some pallor of skin resulting from the ordeal of the last few days, but the mucous membranes were pink and normal; the glandular system, reflexes, lungs and heart were normal; abdomen very prominent and dis-

tinctly ovoid in contour; palpation reveals a smooth, pear-shaped tumor extending from midway between the umbilicus and ensiform cartilage to the pubes, the larger end uppermost. Percussion gives a flat note over the tumor, typical of fluid, elsewhere the abdomen was tympanitic.

INSPECTION:

Just at the lower end of sacrum there was noticeable a slight irregularity in contour, while extending down towards the anus was a distinct bulging of the tissues. One half inch below the tip of the coccyx is the most prominent part of the tumor, and here the skin over an area three-quarters of an inch in diameter appears smooth, transparent and traversed by enlarged capillaries.

Externally the tumefaction measures three inches across and four inches in length. From the tip of the coccyx to the anus is three inches.

PALPATION:

The tumor is distinctly fluctuant and dilates when the child cries. The erect posture increases the tension. The lower sacrum is deformed and projects downward as an attenuated spicule of bone two inches long. Furthermore, the cleft to the right side extends upward one half an inch higher than that on the left. Through these clefts the fluctuant mass protudes causing the irregularity spoken of above.

PERCUSSION:

Percussion elicits the flat note of fluid.

RECTAL EXAMINATION:

Immediately upon the finger's entering the rectum it impinges upon a soft tumor almost completely filling the pelvis, causing the rectum to take an upward and forward direction, and preventing an exploration of the anterior wall of the sa-

crum.

An X-Ray photograph made by Dr. R. W. Gibbes of Columbia throws no light upon the exact character of the deformity, revealing only an irregularly formed sacrum in its lower half. However, there seems little doubt that the bodies of several sacral vertebrae are wanting.

The diagnosis at the time was a Spina-Bifida, with paralysis of the bladder and consequent retention of urine produced most probably by the severe blow over the tumor in sitting forcibly on the floor the afternoon of the 20th.

On passing a catheter about two quarts of clear, normal urine was withdrawn, followed by a complete disappearance of the tumor.

Bearing on this as a cause, it would seem very suggestive that the attacks were most frequent during the stage of the child's learning to walk when falls on the buttock are frequent and ceased when the child had learned to maintain well her balance in the erect posture.

Up to April 1st, 1909, there have been no further trophic disturbances, nor has the tumor changed in any way.

As regards treatment, surgical interference seems fraught with grave danger and no hope of relief or improvement. The child herself, in never sitting squarely on her buttocks, protects the tumor constantly.

It would seem that the withdrawal of the fluid, followed by the injection of Morton's mixture might hold out some hope of an obliteration of the sac. However, at best, the prognosis looks grave, and death will probably sooner or later result from a rupture of the sac within the pelvis, followed by a fatal loss of cerebral fluid.

This case would seem to come under the head of Myelomeningoceles with its sac formed by the Arachnoid and the Pia. We would in all probability find the cauda-equina attached to its sides.

METHODS OF TYING SURGICAL KNOTS.

By B. B. STEEDLY, M. D., Spartanburg, S. C.

Mr. President, Members of the Society:
For this paper I have selected a sub-

one which comes up in the practice of every physician, one which is scarcely



Figure 1.

ject, which seemingly is very simple, but which to my mind is very important,



Figure 3.

touched upon in the text-books, and yet one which the busy practitioner has very



Figure 2.

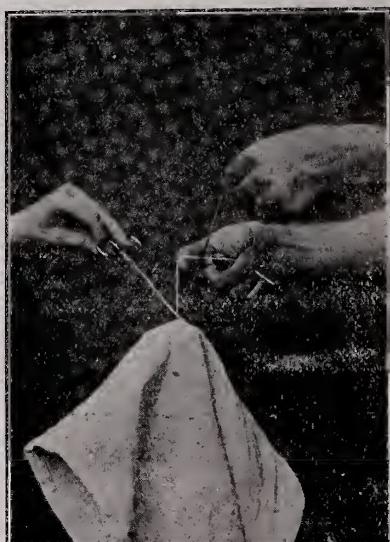


Figure 4.

Methods of Tying Surgical Knots. It is little time to work out for himself.

No doubt, the laity would say that any one can tie a knot and that to get the knot tied is all-sufficient. But the physi-

try it the second time. Also, in this day of modern surgery, when speed counts for almost as much as knowledge, the



Figure 5.

cian or surgeon will realize that even in the tying of knots there is science. Some knots will slip, while others will not and



Figure 7.

surgeon must learn and know not only how to tie exactly the knot he wants, but he must also know the quickest and eas-



Figure 6.

always tying just the kind of knot he wants without examining it or having to the surgeon wants to be sure that he is

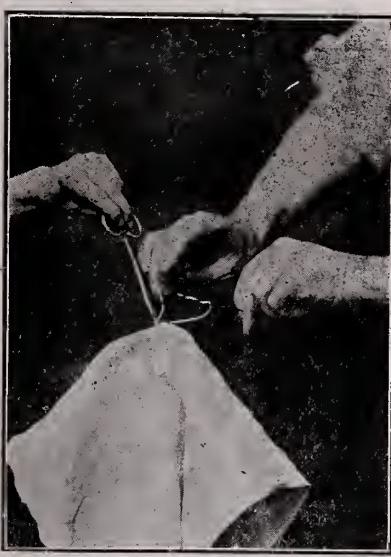


Figure 8.

iest way of tying it.

It is not my purpose to take up your time in describing the methods which you

will find in the text-books and with which you are no doubt sufficiently familiar. Some of these which I shall describe and



Figure 9.

demonstrate have been shown me by other surgeons, while some of them, I have worked out for myself, but, so far

The one which I will take up first, while seemingly the most difficult, becomes with a little practice the easiest,



Figure 11.

simplest, and by far the quickest of all, and has the additional advantage that practically all the manipulations are car-



Figure 10.

as I know, none of them have ever been published, and all insure the tying of a reef and not a granny knot.



Figure 12.

ried out with one hand and both turns of the knot made with the same end of the ligature, which is especially desirable

when a needle is attached to the other end. Likewise, in using catgut wound on spools, the spool may be held in one



Figure 13.

hand while the tying is done with the other. In this way a number of clamps can be rapidly replaced by ligatures with



Figure 14.

considerable saving in the amount of catgut, inasmuch as one end of the ligature, after being cut, always remains at-

tached to the spool.

Take the upper loop of the thread between the thumb and index finger of the left hand and the end of the lower loop between the same fingers of the right hand, but with the thread passing under the ulnar border of the ring finger and over the palmer surfaces of the ring and middle fingers. Draw the upper loop across the radial border and palmer surface of the right middle finger opposite its distal interphalangeal joint (Fig. 1.) Hook this finger carrying the upper loop in toward the palm, passing over the low-



Figure 15.

er loop; then straighten by passing under the lower loop (Fig. 2). Secure the lower loop between the apposed surfaces of the middle and ring fingers, at the same time releasing its end, and draw through forming the first turn of the knot (Fig. 3). Bring the released thumb to the aid of the two fingers in grasping a firmer hold and continue the traction on the two loops until the first turn is made tight.

The upper loop has now become the lower and is held in the left hand, and vice versa, while we are ready for the second turn of the knot. By slightly rotating the hand outward and simultaneously bringing it toward the left, the upper loop can be easily secured between

the radial border of the thumb and the radial border of the middle finger, and the index finger placed under the loop about an inch from the thumb, thus making the thread taut (Fig. 4). While holding the lower loop perpendicular to and in contact with the portion of the upper loop intervening between the thumb and index finger, hook the latter around the lower and under the upper loop (Fig. 5). By straightening the index finger and rotating the hand inward, carry the portion of the upper loop now caught over the nail of the index finger around the lower loop, at the same time releasing its end and allowing it to follow the remainder of the loop (Fig. 6), now secured successively between the apposed surfaces of the middle and index fingers and the index finger and thumb, when the second turn of the knot can be drawn tight.

I will next refer to my method of tying the so-called surgeon's or friction knot. In this I combine the manoeuvres used in making the first and second turns of the knot previously described by using both hands simultaneously—that is to say the hand holding the lower loop executes what corresponds to the first turn, while the other hand working in the opposite direction executes the second (Fig. 7), which together result in a double turn (Fig. 8). A reversal of these manoeuvres gives a second double turn and completes the knot. Instead of a double turn following the double, a single may be used. In tying trivial vessels which have been temporarily clamped during the course of the operation, I frequently use the double turn alone without supplementing it with any other.

I wish especially to recommend this method of tying the friction knot, as by using the two hands in concert the double turn is about as quickly made as the single.

The next knot, although not so quickly executed as the first, is much easier to learn. Grasp the upper loop between the tips of the thumb and first two fingers of the left hand with the end of the thread pointing down; with the other hand carry the lower loop inside the end of the upper and secure it between the apposed surfaces of the index and middle fingers

(Fig. 9); now catch the end of the upper loop with the right hand and bring the first turn of the knot down by separating the hands. A more secure hold on the lower loop is obtained by the assistance of the thumb. To make the second turn (the upper and lower loops have now become reversed), hold the upper loop between the tips of the thumb and middle and ring fingers, carry the lower loop over and inside the end of the upper, and secure it between the apposed surfaces of the middle and ring fingers (Fig. 10), and complete this turn by drawing down in the same manner as the first (Fig. 11). This knot can be tied equally well by reversing hands.

While this in some respects resembles the description of the knot described by Heath in Bryant's Surgery, it is so different in others that I think I am justified in claiming my method of tying it as original.

Another method of tying the reef knot is as follows:—Grasp the upper and lower loops in the palms of the left and right hands respectively with ends pointing down and with the lower loop hooked over the back of thumb of the same hand. Carry the upper loop over the lower and to the ulnar border of thumb. Pass the right index finger between the loops, under thumb but in opposite direction (Fig. 12), and withdraw the thumb. Secure the upper loop between the tips of the thumb and index finger (Fig. 13) and project it forward between the loops (Fig. 14), where it can be seized by the left hand (Fig. 15), and the first turn drawn tight. The second turn is made by going through the same movements, reversing the hands, thus completing the knot.

In my own work, while I ordinarily prefer the method first described, I often use any one of the others or a combination of them, depending on the way I happen to pick up the ligature, inasmuch as it is better to do this rather than lose time in changing the ligatures or sutures from one hand to the other or to a different position. By a little practice any one can soon learn to use the knot or the turn most easily adapted to the individual case instead of confining himself to the use of any particular method.

Any physician or surgeon who will devote a little time to the study and practice of tying the above knots will, in my opinion, find himself well repaid both from the standpoint of convenience and in time saved.

For any of these methods ligatures of ten to twelve inches are best suited, and it is well for assistants to accustom themselves to handing the surgeon ligatures of such length and sutures of about twenty inches.

THE STATE BOARD OF HEALTH--ITS RELATION TO ITS EXECUTIVE COMMITTEE.

By C. F. WILLIAMS, M. D., Secretary and State Health Officer.

We believe but few of our physicians really understand or know what the State Board of Health is--how it is constituted and what relations legally exist between it and its Executive Committee. For this reason we quote the following sections of our public health laws.

Sec. 1084. "The South Carolina Medical Association, and their successors, in their corporate capacity, together with the Attorney and Comptroller Generals of the State, and their successors in office are a Board of Health for the State of South Carolina, to be known as the State Board of Health."

Sec. 1086. "The said Association, at its first meeting after January 1st, 1893, and every seven years thereafter, shall elect seven members, to be recommended to the Governor, who shall appoint them to co-operate with the State officers above named, to constitute an Executive Committee, having power to act in the intervals of the meetings of the State Board of Health. This Committee shall make, annually, a detail report to the State Board of Health. Members of this Committee shall be removable by and at the pleasure of the Governor, upon the request of the State Board of Health, or for neglect of duty, or other causes set forth by the majority of the members of the Executive Committee. Vacancies shall be filled by appointment by the Governor, on recommendation of the State Board of Health, or of the Executive Committee, when such vacancies occur in the intervals of the meetings of the Association."

It will thus be seen that what is usually spoken of as the State Board of Health

is in reality only the Executive Committee—the Board being made up of those physicians who hold membership in the South Carolina Medical Association. Obviously enough, then, it must seem that a very intimate legal relation exists between the State Board of Health and its Executive Committee. But does a cheerful, spportive and co-operative relation exist? 'Tis the latter that most concerns us, for there can be no doubt that the success of our efforts in public health matters depends very largely on the attitude of the medical profession towards such efforts. The medical man's position in his chosen sphere is unique. Not only is he medical adviser in cases of sickness, but he is appealed to for advice in all matters of public health. Certainly this is true if one in his community falls a victim of some contagious disease, requiring quarantine restriction.

Now, what is his attitude under such conditions? Is it one of cheerful and willing support, making easier the task of the health authorities and insuring a proper protection to the general public, or is his compliance, with the remedies applied, a selfish, grudging or even hostile one? In such cases it would some time seem that many of our physicians adhere too strictly to the old individualistic idea that their whole duty is to their patient—forgetting not only their duty to health organizations but to that far more important party—the general public and its interests.

In our investigations of outbreaks of contagious diseases, not infrequently does it come to our ears that Dr. A, a member of the State Board of Health, had a case

in the family of Mr. Jones, but nothing was ever said or known about it until a case developed in the family of Mr. Smith, his next door neighbor, and Dr. B. was called in. Now, Dr. B., having a proper conception of his relation to the health authorities and his duty to the public and not being a servant of his patient except so far as his interests are identical with those of the community, reports the case to the local Board of Health or takes such steps as will insure protection to the public. Then it is that Willie Jones, innocent of any wrong, blurts out, "I had that same thing, but Dr. A. didn't shut us up, for Papa and Mama told him they wouldn't stand for it—they didn't believe it was scarlet fever anyhow, and if he put a sign on our door Mary and Susie would have to stop school, all the boarders would leave, and that would never do."

While we do not believe that many of our physicians are given to such practice as indicated by Dr. A., still, from our experience, we cannot deny that there is ground for such assertions, but on the contrary we must confess that such things do sometimes happen. Under no circumstances do we believe this a justifiable course for a physician, nor do we believe it ever happens without the physician committing the offence, losing to some extent, the respect and confidence of the family he thinks he has befriended. It will no doubt be argued by such physicians that there is no need to report contagious cases to the local Board of Health, for the Board is no good and nothing will be done. We admit that many of our local Boards are not what they should be, but to those using such an argument, we ask these questions. What are you doing to make your Board more efficient? Are you giving it a cheerful, hearty support, or are you criticising it because you wish to prejudice the people against Dr. B. or C., who, not by their own selection, but by appointment, and from a sense of duty, are members of the Board. Local Boards of Health are branches of the public health service, and in order for them to be efficient organizations they must receive the support of the medical profession within their limits.

That our friends who are located in the country and who do not reside within the limits of a Board of Health may aid us in our efforts to restrict and prevent contagious diseases—we quote sections 3 and 4 of an Act which was passed in 1905, and which will be found at page 904 Acts of that year.

Sec. 3. "That when infectious diseases, such as small-pox, diphtheria and scarlet fever occur outside of incorporated towns, the attending physician shall quarantine the premises whereon the same occurs, give the notices, and assume the duties of the Board of Health in the premises, and he shall report the same to the nearest Board of Health; and that, in the case of such quarantine of the country house by the attending physician, no one except himself shall enter or depart from the premises without the permit of the attending physician."

Sec. 4. "That any person violating the provisions of this Act, shall, upon conviction, be deemed guilty of a misdemeanor, and shall be fined not exceeding one hundred dollars, or imprisoned not exceeding thirty days."

Just a word more. Are the members of the State Board of Health doing their duty towards their Executive Committee in its efforts to collect vital statistics? We have on our mailing list one thousand and sixty-three physicians to whom statistical report blanks are mailed at the end of each month. Seven hundred and forty-three of this number are, by the section of our public health laws, members of the State Board of Health. From the latter number we receive on an average, 275 reports each month. Whether you are doing your duty in this respect, we leave for you to answer.

It is hoped that this article will not be construed as one of criticism. We are not criticising; although we have a just ground to do so. Our sole hope and aim is to awaken the members of the medical profession to the realization that the efficiency of our public health organizations depends very largely on their attitude toward such organizations, and to appeal to them to aid us in our efforts to protect the general public and its interests.

DEPARTMENT

Of the Society of Medical Secretaries, South Carolina Medical Association.

DR. ALLEN J. JERVEY, Charleston, Chairman.

DR. MARY R. BAKER, Columbia, Vice-Chairman.

DR. L. ROSA H. GANTT, Spartanburg, Secretary and Treasurer.

HOW TO INCREASE INTEREST.

By J. R. YOUNG, M. D., Secretary.

After having served for three years as secretary of a County Medical Society, I have been convinced of at least one thing that the Society that depends on keeping up a healthy state of vitality by assembling occasionally, and having a few papers read and discussed, is going to be badly disappointed. Perhaps the disappointment will not be great either, because the indifference and lack of interest will only be the natural result, fulfilling the "I-told-you-so" prophecy of the doubting Thomas.

One of the most difficult and unpleasant patients that the doctor has to treat is that nervous, self-centered, individual who, when he thinks at all, thinks only of himself. His every thought travels in a vicious circle, centering in his own hypertrophied EGO. The only salvation for such a patient is, in some way, to cause an explosion of his EGO! When his blinded eyes and deafened ears have been made to see and hear the call of the world, life will take on new interest, and he will become a MAN.

The same thing is true of that County Society whose handful of members meet once a month and have a paper read. Its entire energy is spent in an agonizing ef-

fort to keep alive! What it needs is to get out of the deep worn ruts and *do something*.

We are glad to note that a number of Societies are forsaking the time-honored programs and are having something new. The recent Pellagra meeting in Abbeville was quite a success, and the officers of that Society should feel amply repaid for their trouble in working up the meeting.

On the twentieth of September we had a very interesting Public Health meeting an account of which appears in our society report for this month. Our next meeting will be held in Williamston, and we are planning to make that a Public Health meeting.

Anti-tuberculosis meetings Public Health meetings of varying nature, local questions of Hygiene and Sanitation, these and many other problems furnish ample material for employing the energy of our Societies. I believe if every society will work up an occasional meeting of this nature it will add to the real life of the society as nothing else could do.

I do not offer this plan as the solution of all society troubles, but merely wish to pass it on as a distinct help in maintaining and increasing the interest in society work.

COUNTY SOCIETY REPORTS.

ANDERSON.

By J. R. YOUNG, SECRETARY.

The Anderson County Medical Society held two very interesting meetings du-

ring September.

At the first meeting, on September 6, there were twenty-five members present and quite a number of visitors. Two

new members were elected, Dr. Hamp. McClesky of Pendleton, and Dr. C. F. Ross of Anderson. Dr. McClesky is an '09 graduate, who recently located at Pendleton, and Dr. Ross is located at Anderson, having moved there from Virginia, where he had practiced for several years. The name of Dr. M. D. Sullivan of Pelzer was proposed for membership and will be voted on later.

The clinical material present at this meeting was so great that all the cases could not be utilized. A very interesting case of Uncinariasis and Pellagra was presented by Doctors M. A. Thompson and R. L. Sanders. The patient, a young woman, a mill operative who had suffered from "weakness" for several years. A positive diagnosis of Uncinariasis had been made by finding the eggs of the hook worm in the stools and a microscopic specimen showing this was demonstrated. The most usual symptoms—anemia, the lemon colored skin, the pot belly, the venous murmur, winged scapulae, etc.—were also pointed out. The symptoms suggesting Pellagra—a rusty looking eruption on hands, forearms, and elbows—was also pointed out and the general opinion was that the patient had Pellagra as well as Uncinariasis.

The subject of Pellagra was then discussed. Dr. Townsend reported on the meeting held in Abbeville and Drs. Young and Sanders reported several cases that they had under treatment.

PUBLIC HEALTH MEETING.

On September the twentieth, the Society held a Public Health Meeting which was one of the best meetings we have ever had. Strictly speaking, it was not a public meeting, but about seventy-five invited guests were present, including the Board of Health, school teachers and trustees and city council.

The speakers were Drs. E. A. Hines, of Seneca, and F. A. Coward, of Columbia. Dr. Hines read a very instructive paper on "The Importance of Medical Inspection of School Children." I will not attempt to abstract this paper, but will send it for publication in the Journal. The teachers present were greatly interested in the subject, and were anxious for the society to take steps to bring the importance

of the subject to the attention of the patrons.

Dr. F. A. Coward read a very interesting and practical paper on "The Value of Meat and Milk Inspection." This paper will also be sent to the Journal for publication, and, we are sure, will be enjoyed by your readers.

Before the meeting adjourned, a motion was passed that both of these papers be turned over to the secretary for publication in the local newspapers.

The plan of holding Public Health meetings at various points through the county was discussed, but definite plans were not made.

The Society adjourned to meet in Williamston, on October the fourth.

DORCHESTER COUNTY.

The Dorchester County Medical Association met in Summerville on Monday night, October 11th, being an adjourned meeting from St. George the previous Monday, when, for lack of a quorum, no business was transacted. The attendance was small, Drs. Carroll, Johnston, J. B., Lee, Simons, Tupper, and W. P. Porcher, of Charleston. Both essayists were absent, but the drug essay by Dr. W. F. Graham was read, and formed the subject for discussion.

The subject was cocaine hydrochloride. In the discussion the strength of the drug used with adrenalinchloride was shown to vary from a 1 per cent. solution by the author, in dental practice, to the pure crystals as used by Dr. Poe, the nose and throat specialist of Buffalo.

The Black list was discontinued as far as the town of Summerville is concerned, and slightly amended for the rest of the county.

The next meeting will be held in Summerville on Monday, Nov. 1st. Dr. H. B. Lee essayist, with Drs. A. R. Johnston, F. Julian Carroll, and G. B. Harley to discuss his paper. Dr. J. L. B. Gilmore will prepare the drug essay.

Edmund W. Simons, M. D.
Secretary.

SPARTANBURG

L. ROSA H. GANTT, M. D. SECRETARY.

The regular meeting of the Spartanburg County Medical Society held on September 24th was the most enthusiastic one for several months.

Dr. H. R. Black reported a new operation he called Appendicæcostomy and which represents some original work on his part.—as he will read a paper on the subject at a subsequent meeting the operation need not be described now.

A paper on "Uncinariasis" was read by Dr. Oscar Nettles and this brought out a great deal of discussion one of the physicians stating that there was a great similarity of many of the symptoms between this disease and pellagra and he believed that many cases reported as pellagra are cases of hook worm disease. It was decided however that this was not a very serious affair, as the thymol treatment and the blood examination would clear up the diagnosis.

Dr. Kirkpatrick read an interesting paper on "Pulmonary Edema Complicating Pregnancy." Dr. Williams commented on the fact that the three similar cases he had seen were all very large women weighing from 175 to 250 pounds.

Dr. D. L. Smith's membership was transferred from the Oconee Society to us.

Dr. Geo. Thompson, of Inman, was elected to represent the society at the 4th District Society Meeting in November and to read a paper.

WILLIAMSBURG.

E. T. KELLY, M. D. SECRETARY.

On September 16, 1909, the Williamsburg County Medical Society met in call session at Lake City, with good attendance. The object of this meeting was to inquire into and adopt some plans as to the illegal practice in the county.

There were five reported for the above four of which were notified to discontinue practice the fifth being allowed to pursue his practice until further investigations could be made, inasmuch as his reasons were plausible.

We are glad to have with us, on this occasion, Dr. F. M. Dwight, of Wedge-

field Councilor of the Seventh District, who gave a general talk as to the character and duties of each officer of the Society. Dr. Dwight also made some valuable suggestions concerning the encouragement of non-members to join us.

The society adjourned to meet in general session in Lake City on October 7, 1909.

X-ray shadows of renal calculi very close to the vertebral column should make one suspect stones in one half of a horse-shoe kidney.—H. N.—American Journal of Surgery.

Not infrequently shifting dullness in the flanks is the only differential signs between diaphragmatic pleurisy (and beginning pneumonia) and appendicitis.—H. N.—American Journal of Surgery.

Rectal palpation is an essential part of the examination in most acute intraabdominal affections.

Peristalsis from left to right, visible through the upper abdomen, is indicative of pyloric obstruction—W.—American Journal of Surgery.

To develop manual dexterity nothing is better than the practice of tying surgical knots.—H. N.—American Journal of Surgery.

Not only in the abdomen but everywhere else in the body—with the sole exception of the brain—when in doubt, drain!—H. N.—American Journal of Surgery.

For the diagnosis of fractures of the upper end of the femur careful measurements are often of greater value than any manipulations—and much safer—H. N.—American Journal of Surgery.

When a patient with inflamed varicose veins develops suddenly dyspnea and cyanosis, don't sit her up to examine her—the probability of pulmonary embolism is too great—H. N.—American Journal of Surgery.

The absence of a "history" should never be allowed to weigh against the diagnosis of syphilis—especially hereditary and tertiary syphilis. The disease is often contracted unknowingly as well as innocently, as by nursing infants.—American Journal of Surgery.

JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION.

FLORENCE, S. C.

PUBLICATION COMMITTEE

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Dr. F. M. Dwight, Wedgefield, S. C.

Dr. J. T. Taylor, Adams Run, S. C.

Dr. F. H. McLeod, Florence, S. C. Editor.

THE PELLAGRA CONFERENCE.

On Wednesday and Thursday, at Columbia, will be held a symposium on Pellagra; under the auspices of the State Board of Health.

One year ago a similar meeting was held, and attended by many physicians. This resulted in general good, and Pellagra has been generally recognized in this state.

The prominent part that Babcock, Watson, Lavinder, Williams and others, have taken in this investigation has brought South Carolina into prominence in the Pellagra matter; and this conference will be of national importance, and will be attended by many prominent physicians from all over the country.

Pellagra is rapidly increasing and is becoming a national menace, and its investigation and study are of the most vital importance.

Various theories have been advanced as to its aetiology, such as the sun, impure water, unhygienic surroundings, etc but the Italian maize theory is generally accepted by those who have made a study of Pellagra.

It is possible to produce from damaged corn, a toxic substance, isolated and called by Lombroso, the great Italian authority on Pellagra, "*pellagrosin*" which, if given to men and animals, will produce symptoms of Pellagra.

It is certain that it is a disease of the corn eating countries, and that it is increasing.

Every side of the question will be fully brought out at this conference, and there

is ample clinical material to fully demonstrate the various stages of the disease.

Prophylaxis and treatment concern us, as well as aetiology.

The inspection of shipped (western) corn and meal, and the more careful maturing of our own homegrown corn are matters to be urged.

Drs. Williams and Babcock have had letters from a great number of distinguished physicians indicating their desire to attend, and many papers have been promised.

TWO IMPORTANT MEETINGS.

The fourth councilor district will hold its annual meeting at Easley, S. C., Nov. 15th 1909 and the third district will hold a Typhoid fever meeting at Greenwood, S. C., Nov. 17, 1909.

A full attendance is urged. Interesting programs have been prepared.

3RD COUNCILOR DISTRICT MEETING.

A Typhoid Fever meeting will be held at Greenwood, S. C., on November 17, '09, at twelve noon, by the third Councilor district.

The following papers will be read:

The Prevention of Typhoid Fever, by John Lyon, M. D., of Ninety Six, S. C.

The Diagnosis of Typhoid Fever, by A. B. Frontis M. D., of Ridge Springs, S. C.

The Diet in Typhoid Fever, by R. E. Hughes, M. D., of Laurens, S. C.

Hyperpyrexia in Typhoid Fever, by G. A. Neuffer, M. D., Abbeville, S. C.

The entire membership of the County Medical Societies of this district are urged to attend this meeting.

A dinner complimentary to the occa-

sion will be given at the Oregon Hotel, by Dr. R. P. Epting.

FOURTH DISTRICT MEETING.

Meeting of the Fourth District Medical Association, Easley, South Carolina, November, 15th., 1909.

PROGRAM.

1. The Social Evil, by Dr. Fred Williams, Rev. D. W. Richardson.
2. Some of the Most Common Causes of Cross Eyes, L. O. Mauldin, Greenville, S. C.
3. "Tuberculosis" R. J. Gilliland, Essayist, Pickens Co. Association.
4. "Appendicoecostomy" H. R. Black Spartanburg, S. C.
5. "Hook Worm in its Relation to Pellagra" E. W. Pinson, Cross Hill, S. C.
6. "Some Factors which Govern Drug Addiction" Geo. Thompson, Inman, S. C., Essayist Spartanburg Co. Association.
7. L. L. Richardson, Fountain Inn, Essayist Greenville Co. Association.
8. "Pellagra" C. M. Walker, Essayist, Oconee Co. Association.

PERSONALS

Dr. T. M. McCutcheon, of Dillon, has moved to Mayesville.

Dr. J. J. Watson, of Columbia, has returned from Europe

Dr. C. C. Jones, of Greenville, has been in New York during the month.

Dr. R. W. Gibbs, of Columbia, has returned from his European trip.

Dr. Rolphe E. Hughes, of Laurens, spent the month of August in Baltimore.

Dr. Lesene Smith, formerly of the Southern Power Co., at Chester, has located in Spartanburg.

Dr. G. A. Neuffer, of Abbeville, has returned from an extended trip through the Northwest.

Dr. J. J. Watson, of Columbia, addressed the Mississippi Valley Medical Association, at St. Louis, at its regular meeting. His subject was Pellagra.

Dr. V. H. Sapp, of Lancaster, was painfully injured by a mowing machine on September 30.

Dr. Ralph W. Foster, a recent gradu-

ate of the Medical College of South Carolina, has located in Timmonsville, and is associated in practice with his brother, Dr. C. A. Foster.

Dr. Morgan P. Moorer, of Georgetown has been appointed quarantine officer of that port, to succeed Dr. J. W. Folk, resigned, who has held the office for twenty-five years. Dr. Folk will reside in Newberry hereafter.

Dr. A. R. Taft, of Charleston, has been elected to the chair of *Materia Medicæ* in the Medical College of South Carolina, succeeding the venerable Dr. John Forrest, resigned, who has occupied the chair for many years.

Dr. William Egleston, of Hartsville, and Edgar A. Hines, of Seneca, have been elected members of the State Board of Health, to fill the vacancies caused by the death of Dr. James Evans, of Florence, and the resignation of Dr. Adams Hayne of Greenville, who is now a surgeon in the United States army.

The following have been added to the faculty of the Medical College of South Carolina:

Dr. E. H. Sparkman, assistant to the chair of Pathology.

Dr. D. L. Maquire, assistant to Dr. A. Johnston Buist, in surgery.

Dr. R. M. Pollitzer, instructor in laboratory of physiology:

Dr. T. W. Reynolds, assistant to the chair of obstetrics.

Dr. C. A. Speissegger, assistant to the professor of chemistry.

Dr. F. L. Parker, Jr., lecturer on medical jurisprudence.

Mr. J. B. Hyde, assistant to the chair of pharmacy

Operation for cancer of the stomach after diagnosis has been made by the presence of a palpable tumor can not be hoped to be curative. The hopeful cases are those in which diagnosis is made through an exploratory opening which may be made under cocaine and only large enough to admit the finger—W.—American Journal of Surgery.

MARRIED.

Seneca, S. C., Sept. 18, 1909.—On Thursday evening the 16th, Miss Mary Cherry and Dr. E. C. Doyle were married at the home of the bride's mother, Mrs. Sarah Cresswell Stribling. The marriage ceremony was performed by the Rev. M. R. Kirkpatrick at 9 o'clock. Several hundred guests attended the ceremony and the reception which followed. At 12 o'clock the newly married couple left for a tour of a month or more to the great West. Miss Cherry is the only child of Mrs. Sarah Cresswell Stribling and the Hon. George Cherry, and thereby is connected with aristocratic and distinguished representatives of the old South on both sides. Dr. Doyle has been a resident of Seneca since his boyhood and is one of the most popular gentlemen in the upper part of the State. He has practiced his profession for some years in Seneca and was a member of the Legislature for several terms. The good wishes of the entire community goes out to this popular young couple.

REPRINTS.

To the Authors of Articles in "THE JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION" and Others Interested.

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BOOKS RECEIVED.

PARENTHOOD AND RACE CULTURE—An Outline of Eugenics. By Caleb Williams Saleeby, M. D., Ch. B. F. Z. R. Edin. Fellow of the Obstetrical Society of Edinburgh. Member of Council of the Eugenics Education Society, the Sociological Society, the National League for Physical Education and Improvement, Member of the Royal Institution, the Society for the Study of Inebriety, etc. Cloth, \$2.50 net. Moffat, Yard & Company, New York.

MEDICAL SOCIOLOGY—A Series of Observations Touching upon the Sociology of Health and the Relations of Medicine to Society. By James Peter Warbesse, M. D. Surgeon to the German Hospital; Attending Surgeon to the Seney M. E. Hospi-

tal; Member of the American Medical Association, American Association for the Advancement of Science American Society of Sanitary and Moral Prophylaxis, American Medical Library Association, Ethical Social League, etc. D. Appleton & Company, New York and London. Cloth \$2.00.

THE OPHTHALMIC YEAR BOOK: VOLUME VI—Containing a Digest of the Literature of Ophthalmology with Index of Publications for the Year 1908. By Edward Jackson, A. M., M. D. Professor of Ophthalmology in the University of Colorado; George E. DeSchweinitz, A. M., M. D., Professor of Ophthalmology in the University of Pennsylvania; Theodore B. Schneideman, A. M.,

M. D. Professor of Ophthalmology in the Philadelphia Polyclinic. Illustrated. *The Herrick Book and Stationery Company, Denver, Colorado.*

TUBERCULOSIS—A Treatise by American Authors, on its Etiology, Pathology, Frequency, Semeiology, Diagnosis, Prognosis, Prevention, and Treatment. Edited by Arnold C. Klebs, M. D. With three colored plates and two hundred and forty-three illustrations in text. *D. Appleton & Co., New York and London.* Cloth \$6.00

PRACTICAL DIETETICS--With special reference to Diet in Diseases. By W. Gilman Thompson, M. D., Professor of Medicine in the Cornell University Medical College, in New York City. Visiting Physician to the Presbyterian and Bellevue Hospitals. Fourth edition, illustrated, enlarged and completely rewritten. *D. Appleton & Company, New York and London.* Cloth \$5.00.

LEGAL MEDICINE AND TOXICOLOGY--By R. L. Emerson, A. B., M. D. (Harvard) Member of the Massachusetts Medico-Legal Society, formerly instructor in Physiological Chemistry, Harvard University Medical School, and Assistant in Clinical Pathology, Boston City Hospital. *D. Appleton & Co., New York and London.* Cloth \$5.00 net.

THE PRACTICE OF MEDICINE--A Text Book for Practitioners and Students with Special Reference to Diagnosis and Treatment. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania and Physician to the Hospital of the University; Physician to the Pennsylvania Hospital; President of the College of Physicians of Philadelphia; mem-

ber of the Association of American Physicians, etc. Fifth edition, revised and enlarged, with five plates and 245 other illustrations. Cloth \$5.50 net. *P. Blakiston's Son & Co., Philadelphia.*

TRANSACTIONS OF THE THIRD INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS--Held at the National Palace, City of Mexico, December 2-3-4-5-6-7, 1907. Published and Distributed under the Auspices of the International Bureau of the American Republics, Washington, D. C.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA--Fifty-fifth Annual Meeting, held at Winston-Salem, N. C., June 16-18, 1908. President, Dr. J. Howell Way Waynesville, N. C. Secretary, Dr. David A. Stanton, High Point, N. C. *Edwards & Broughton Printing Co., Raleigh, N. C.*

TRANSACTIONS OF THE THIRTY-NINTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF VIRGINIA--Held in Richmond, Virginia, October 20-23, 1908. *Capitol Printing Company, Richmond, Va.*

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY--At the one hundred and eighteenth anniversary, held at Concord, May 13 and 14, 1909. *The Rumford Printing Company, Concord, N. H.*

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When a pyloric carcinoma is palpable, preoperatively, radical removal is usually impossible—H. N.—*American Journal of Surgery*.

The examination of the eye ground's will often be the first clue to a tumor of the brain.—N. H.—*American Journal of Surgery*.

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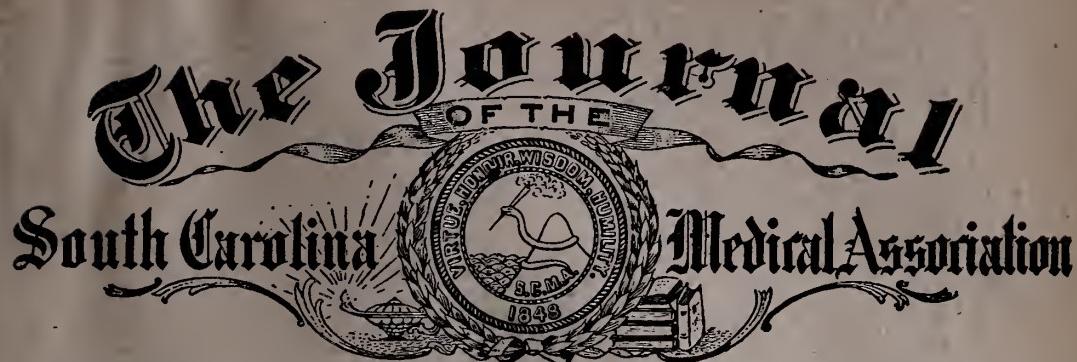
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ORIGINAL ARTICLES.

INTRODUCTORY REMARKS ON PELLAGRA

By S. M. SANDWITH, F. R. C. P., Gresham Professor of Physic, London, England

Although my professional engagements in London prevent my accepting the courteous invitation of the South Carolina State Board of Health to attend the National Conference on Pellagra, I gladly avail myself of their further request that I should write a short paper on the subject.

I feel that my first words must be those of congratulation and encouragement to the many physicians in the Southern States who are now working at the various problems connected with pellagra. Congratulation in the first place, because they have discovered the exis-

tence of the disease; because they have impressed this discovery upon others so that the presence of pellagra is now thoroughly recognized by competent observers; and because they have provided us with a literature on the subject in the English language. This cannot but be of interest to me, because, until I began to write on Pellagra, there were apparently no literary contributions in our tongue, if we except two or three accounts written by travellers to describe cases they had seen in Italy. The English text books are either silent on the subject, or frankly ignorant.

If I venture also to encourage American co-workers, it is not with any improper desire to draw attention to my

*Read at the National Conference on Pellagra, Columbia, S. C., Nov. 3-4, 1909.

own work, but because I happen to be in the unique position (with regard to this one disease) of being able to appreciate their difficulties.

So long as 1893, while preparing a paper on Ankylostomiasis, I became aware that some of my peasant patients at Kasr-el-Ainy Hospital in Egypt, were suffering from dermatitis, baldtongue, diarrhea, pains in the back, alteration of the knee joint, insomnia, and melancholia, all symptoms which could not legitimately be attributed to the anaemia caused by the hook worms. Quite ignorant, at that time, of Pellagra, which was not known to exist outside of Europe and Mexico, I determined to study the disease in Italy.

Landing at Venice, I was disappointed to find that the physicians of the general hospitals and lunatics asylums there, were not interested in the disease, though at Milan and in its neighborhood, I found many who were well acquainted with it, especially in the lunatic asylums, and at the *pellagrosarii*, or farm sanatoria for the care of chronic patients.

I had no difficulty in identifying the pellagra of Lower Egypt with that of Italy, though the complications of the disease are obviously different in an Italian carnivorous alcoholic, and in an Egyptian, who habitually takes little meat and no alcohol and is likewise infested with entozoa (*Ankylostomum duodenale* and *Schistosomum haematobium*)..

Upon my return to Egypt, I succeeded in interesting a few of my English colleagues in pellagra, but I had to wait many years to induce the Egyptian government to make any inquiry into the prevalence of the disease, though my facts and figures had never been disputed.

Maize (*Zea Mays*) was introduced into Egypt as a cereal from Syria, about 1840, yet Pellagra was not discovered until 1893, though it had, perhaps been present for years in the country districts.

In spite of denial from American authorities on medicine, I have always suspected that Pellagra might exist, unrecognized, in the South, and at one time I requested my friends to put me into communication with the poorest folk of

the maize-eating districts. I was referred to a settlement in Eastern Virginia for pauper negroes, but on investigation, I found that the inmates lived in stone houses on pork rations, and I came to the conclusion that the word "poverty" represented no condition in America which could compare with the misery of the impoverished peasants of Italy, Roumania or Egypt.

During the South African war, I found myself surrounded by poor colored folk living on maize, and I naturally expected to meet with some Pellagra among them but every medical man practicing in the country assured me that no such disease had ever been seen. Yet, in the year 1900, I saw two cases of Pellagra among the lunatics of Robben Island, Cape Town, and had previously recognized a third case at Bethlehem Hospital (London) which has been imported from South Africa.

This re-awakened my suspicions with regard to the United States, and I was not surprised in 1902 to hear of the pellagrous farmer, reported by Dr. H. F. Harris of Georgia.

In April, 1905, I had the good fortune to be at Boston (Mass) during an epidemic of cerebro-spinal meningitis, and the very first patient whom I saw at the City Hospital, by the courtesy of Dr. C. F. Withington, was an Italian immigrant who also displayed a well marked pellagrous eruption. This leads one to wonder whether the United States Public Health and Marine Hospital Service officers, who examine the emigrants at Naples, and other Italian ports, should not include Pellagra among the prohibitory diseases.

Now that the diagnosis of Pellagra has been firmly established in many States, it would be well to find out for certain how many people are attacked by the disease in the South. In order to arrive at any correct figures, it might be well to institute compulsory notification of the disease, at least as a temporary measure. In Italy there has been a law to that effect since 1888. The lunatic asylums will continue to yield a certain number of advanced cases, but Pellagra should be searched for among the out-patients of general hospitals, and in the private prac-

tice of country doctors. I would also recommend that agricultural laborers should be examined in the States where Pellagra is known to be prevalent, such as Georgia and North and South Carolina. This might be done in February or March, when the eruption is likely to be present.

In 1901-2, I obtained permission to examine 500 Egyptian peasants, who were actually at work in the fields; they all stoutly denied that they were ill, and their employers, who worked with them, stated that they could all do a fair day's work. Yet, in every field I found early cases of Pellagra, varying from 15 per cent in well-to-do districts, to 62 per cent in the inhabitants of the poorest hamlets.

Though maize was the last of the great grain crops of the world to be brought within the domain of civilized agriculture its production has now attained such magnitude that in some years it constitutes the greatest cereal crop of the world. As at least three quarters of the world's maize crop is grown in the United States the cultivation and curing of this cereal are of supreme importance to every American citizen. Already the question has excited the interest of investigators like Dr. Carl L. Alsberg.

If a complete census could be obtained of the pellagrous, it might be found that the two sexes suffer equally, unless the women have a less varied diet than the men, and I shall be surprised to learn that the children (after the age of ten) are fairly exempt, as more than one American writer has stated during the last two years.

One of the objections to the diseased maize theory of causation is that cases are sometimes reported of pellagra occurring among those who have never eaten maize. In examining more than 1000 cases of pellagra, I have of course, often met with individuals who stated that they were not maize eaters, but on cross examination every one of them pleaded guilty of having occasionally eaten bread which was partly made from maize flour. I therefore venture to suggest that any *undoubted case* of Pellagra should be thoroughly questioned, before we inculpate a second cereal, or attempt to overthrow the belief that disease-

ed maize is a potent factor in the etiology.

Two cases of Pellagra have recently been recorded in patients who had never been out of the British Isle, but the published accounts do not tally with the disease as I knew it, though the symptoms were somewhat similar to pellagra. One of the patients had never eaten maize, but had devoured raw oatmeal and rice.

A recent writer said that he thought maize might bear the same relation to Pellagra as the swamp does to malaria. I would prefer to say that maize may be to Pellagra as the mosquito is to malaria, remembering always that an uninfected Anopheles is unable to communicate malaria to any human being.

The diagnosis of pellagra is unusually not difficult to anyone acquainted with the disease, but two groups of patients have often puzzled me; in the demented, unable to give any account of themselves, it is sometimes not easy to determine whether Pellagra was or was not the foundation of their mental failure, though sometimes the re-appearance of a rash at the advent of spring will help to decide the question. Another doubtful class of lunatics is affected with real or "pseudo-general paralysis," and in exceptional instances doubt may still prevail after the autopsy.

Anyone hesitating between the diagnosis of Pellagra and leprosy must be profoundly ignorant of both diseases.

I notice that some, whose attention has lately been drawn to the study of Pellagra, are puzzled by the use of the term "pseudo-pellagra," used by French writers. I have never employed this word myself. I have never heard it made use of and I know of no circumstances under which it need be used. Roussel, a French physician, who wrote on Pellagra between 1842 and 1866, called certain cases of "sporadic pellagra" in France, which only faintly resembled the endemic disease; "pseudo-pellagra."

Most of the cases of so-called "sporadic pellagra" clearly rested on errors of diagnosis during the years which followed Roussel's discovery that Pellagra occurred in the entire of France. Dejeanne, in 1871, subjected these French cases to a thorough scrutiny and wrote "these are maladies differing wide-

ly among themselves, and all of them very different from endemic Pellagra, not only in the etiology but also in the nature and concatenation of the symptoms." Surely, it is unnecessary to revive this antiquated discussion. (4).

The treatment of early cases, without mental symptoms, can be successfully accomplished by putting the patient on a liberal diet, excluding maize, and by ridding him of the hook worms which are so often co-existent, but the pellagrous symptoms return if he is allowed to resume a diet of musty maize. Various preparations of arsenic are useful in advanced cases, but when the brain is attacked there is small hope for the patient unless by sero-therapy. Pellagra is essentially a disease which cries for preventive measures.

Italy, by preventive measures, has, since, 1888, reduced the mortality of Pellagra from 3483 to 1635, though during the years 1883 to 1907, the maize area under cultivation has increased from 5.79 to 6.33 per cent. of the whole country. This points the moral that it is in the years 1883 to 1907, the maize which is at fault. There are certain general axioms which prove true in Italy and Egypt, and it will doubtless be found that they hold good in the United States also:

1. In districts where no maize is cultivated or habitually eaten, Pellagra does not exist.

2. There are many districts where maize has been cultivated for many years and yet pellagra has not appeared.

3. Well-to-do people in Pellagra districts, living on varied diet and consuming maize as an occasional, and not as the staple cereal, usually escape Pellagra.

4. It is not good maize, or good maize flour, which produces Pellagra,

the disease requires for its production the habitual use of damaged maize in some form.

There is a vast Italian literature dealing with the question of what the damage may be, and there is now a considerable concensus of opinion in favor of incriminating *penicillium glaucum* in ordinary Pellagra.

5. We are constantly being reminded by sceptics that the maize area of the world is infinitely greater than the Pellagra area. This is not the point. The question is, does not Pellagra distribution correspond very nearly with the area upon which human beings live who eat damaged maize, or products made from damaged maize?

May I be allowed to conclude these somewhat disjointed remarks by emphasizing Dr. James H. Randolph's dictum?: "There undoubtedly have been many cases overlooked in the past, but the greatest danger to be avoided in the future is not so much the failure to recognize the condition, but rather a too great eagerness to diagnosis as 'Pellagra' many related disorders."

We are now waiting, in the confident hope that some of the Pellagra problems, so long unsolved, may be successfully mastered in the United States.

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COMPLEMENT FIXATION WITH LECITHIN AS ANTIGEN IN PELLAGRA—FURTHER OBSERVATIONS.

BY C. C. BASS, M. D., New Orleans.

In a preliminary note published in the Journal of the American Medical Association,

*Read at the National Conference on Pellagra, Columbia, S. C., Nov. 3-4, 1909.

October 9, 1909, I reported a positive complement of pellagra. One of these has since been found to have had syphilis and would probably have given

a positive reaction from this cause. Another one of the tests was made on blood taken at autopsy twenty-four hours after death, and is therefore not to be credited fully. There remained, however, four cases that gave a positive reaction without any apparent cause except the presence of pellagra. Since that publication I have tested the blood of ten other cases of pellagra for this reaction, and wish to report them here. In these positive cases one was known to have had syphilis and would probably have given a positive reaction without the presence of pellagra. In the tabulation below it will be convenient to include the former six cases.

Case No. Type of disease. Reaction.

4. Chronic case, 4 yrs. duration; severe acute attack attack, insanity and death. Positive.
5. Mild acute case; first year, improved Positive.
6. Severe acute case; death, had had syphilis. Positive.
7. Severe acute case; death, blood taken 24 hrs. after death. Positive.
8. Mild chronic case, severe skin lesions: improved Positive.
11. Moderately severe case; also had T. B. which contributed to her death. Positive.
12. Severe first attack; death in one month. Negative
13. Severe case; diarrhea 1-2 yrs. erythema 10 days Negative.
14. Severe case; diarrhea and vaginitis 2 yrs; erythema 2 months; had had syphilis. Positive.
18. Mild chronic case; improving. Positive
20. Very severe case; death. Positive.
21. Mild case; first (?) year. Positive.
22. Moderately severe, acute attack; 3 or 4 summers erythema; 3 months emaciation; diarrhea and indigestion 27 yrs. Positive.
23. Moderately severe case first summer; estivo-autumnal plasmodia in blood, great anemia. Positive
24. Three years diarrhea; severe mental symptoms now, Positive

- erythema pretty well cleared up. Negative.
25. Severe case, diagnosed by Dr. Lavinder. Negative.

TECHNIC.

It will not be necessary to describe the technic in detail, as it is the Wasserman serum reaction for syphilis, with slight modifications to suit my own convenience, and substituting as antigen lecithin for syphilitic liver extract. The hemolytic system used was sheep blood corpuscles, guinea pig complement and sensitive rabbit serum amboceptor.

The hemolytic unit used in all tests was 1-20 C. C. of sheep corpuscles. The lecithin solution used for antigen is a 0.3 per cent solution in equal parts absolute alcohol and salt solution. One-tenth c. c. patients' serum per hemolytic unit must bind the unit of complement or the test is considered negative. All except five of the tests here tabulated were made with inactivated serum. All the tests were controlled by running through at the same time a normal negative serum and also a reacting syphilis blood exactly as is usually done in making Wasserman's reaction for syphilis.

An analysis of the sixteen cases shows that two have had syphilis, one was done on old autopsy blood, and another had estivo-autumnal plasmodia in the blood when the test was made. Excluding these possible sources of error, we still have eight out of twelve cases giving a positive reaction. Of these eight positive cases, seven were of the mild or chronic type and only one was of the severe acute type. Of the four negative cases, all had severe acute attacks and two had their first attacks. Two of these are alive but do not promise to recover from the present attack. The reaction seems more likely to be present in chronic mild cases, and those showing some resistance to the disease which is in keeping with the fact that the complement fixation reaction is due to the presence of antibodies for lipoid substances.

The observations here reported are on far too few cases to permit final conclusion. They should be confirmed by a study of a much larger number of cases,

and by competent observers.

The complement fixation reaction with lipoid substances as antigen has been found in syphilis especially, but also in trypanosomiasis, sleeping sickness, kala-azar, certain cases of malaria, a few cases of scarlet fever and probably other diseases. All of these, except possibly scarlet fever, are protozoan diseases. The reaction has not been found in bacterial diseases except in rare instances.

At the suggestion of Dr. Dock, the strength of the reaction was determined in three positive cases. One-tenth c. c. serum in one case fixed two units of complement; another fixed four units; and one case of two years' duration, fixed twenty units of complement.

I am indebted to the Charity Hospital staff, and to many physicians of New Orleans, and vicinity for courtesies shown.

PATHOLOGY OF PELLAGRA

By H. F. HARRIS, M. D., Secretary State Board of Health, Atlanta, Ga.

There are few, if any, diseases characterized by perceptible organic lesions, the pathological anatomy of which is so difficult to arrive at as that of pellagra.

This is to be accounted for, first and foremost, by the extreme chronicity of the disease. At this point it may perhaps be well to say that some of the earlier American writers on this subject, and those to whom the credit is largely due to calling attention to the wide prevalence of the malady, generally fell into the error of describing the characteristic exacerbations that come from time to time in the course of this affection, as being "acute pellagra."

As these reports were usually made from asylums, there is little room to doubt that probably most, if not all, of the cases referred to, occurred in persons already victims of pellagrous insanity. Certain it is that in a large number of instances of the disease that I myself have seen, both in and out of asylums, in not a single instance could there be any doubt as to their chronic nature. Still another difficulty lies in the fact that these patients rarely die in the earlier stage of the disease. At such times, the true character of the affection from which they are beginning to suffer is very seldom diagnosticated, and even where this is done the patient is taken off by some intercurrent malady, and the morbid anatomy and histology of the two diseases are almost necessarily more or less

confounded.

Since the introduction of modern methods of histologic examination there is not in the whole literature, so far as I am aware, an account of a thorough post-mortem examination in an uncomplicated case of pellagra in the earlier stages. Another difficulty has been that the grosser changes are found very inconsistently in most of the internal organs, and are relatively of little importance—it being in the central nervous system, where the alterations are of a microscopical character, that we have to look for the true seat of this affection. As it is only within recent years that our methods have been so developed that many of these alterations can be made out, it follows that the descriptions of the morbid histology given by the earlier writers is of comparatively little importance. In the absence of such methods of examination one can well understand and sympathize with the despairing statement of Bertherand who said, "From an excess of fatality pellagra has causation, no treatment, and no morbid anatomy."

Up to the present time all recorded post mortem examinations with thorough studies of the tissues have been made without exception on old pellagrous subjects, and we are therefore constrained to regard as being typical of this affection those alterations discovered in the terminal stage of the malady. I would have no hesitation, however, in predicting that the future will show that the initial changes are in the central nervous system.

However, before describing these alter-

*Read at the National Conference on Pellagra, Columbia, S. C., Nov. 3-4, 1909.

ations attention will be given to certain changes in the other viscera that are of clinical importance, and still others will be mentioned on account of their theoretical interest.

SKIN.

A knowledge of the skin lesions in pellagra dates from Casel's first observations which began about the year 1735, although his monograph on the subject was not published until 1762. In the meantime Thierry had gained access to Casal's manuscripts, and published in January, 1755, an account of the writing of the latter on this subject. The alteration begins, as first shown by Raymond in 1889, with considerable suddenness, developing during the course of 24 hours, after a prodromal period of greater or less length. Merck has recently asserted that there is often a preliminary rash, occurring as discreet muculæ, that lasts from a few days to a few weeks. The erythema begins on the back of the hands, and at the bases of the fingers. It is at first a livid red, and after a few days becomes covered with scales and shed-off epithelium; this hyperkeratosis continues throughout the course of the eruption, and is exceedingly characteristic. The tissues are swollen as a consequence of the increase of both blood and serum in the derma, and as a result the normal elevations and depressions of the skin becomes more marked than usual, giving to the back of the hand a wrinkled appearance; the contrast between the youthful face and the aged characteristics of the hand are most striking in some subjects. This lesion extends gradually until in most cases it covers the entire back of the hands and may reach up to a greater or less height along the forearm, and even to the shoulders. It does not often extend to the tips of the fingers, but may do so. After several recurrences, the backs of the hands become pigmented, and in some cases the skin becomes permanently thinned.

Similar lesions are observed on the backs of the feet, though by no means so common as in the location already described; they always occur with or following the eruption on the hands. In that most excellent monograph of Valdea,

that writer refers to the frequency of the occurrence of the lesions on the backs of the feet in Yucatan, and it would appear to me, from the descriptions I have read of the disease as it occurs there, that it is more frequent here than in Europe. The erythema may spread to the ankles and legs.

In quite a number of cases the lesion is observed on the face, beginning usually on the bridge of the nose, and gradually extending over its entire surface and down of the cheeks, and in extreme instances may reach to the chin and lips, and spread itself finally over the entire countenance. It is more frequent in men than women. The scalp remains normal. The eruption may be in small distinct spots, though it is usually confluent. In some cases it occurs also on the neck and extends down the sternum, giving rise to the so called "Casal's neck tie."

More rarely still other parts of the body may be affected, the change being observed on the elbows, on the arm, and on the skin covering the popliteal space, on the scrotum, around the anus and in the perineal region. For women the vagina may be inflamed, and later ulcerated. In a rapidly fatal case in a white man following the eruption on the hands. I recently observed spots scattered over the various parts of the body and pigmented to such a degree that they appeared almost black; they were not preceded by an erythema. Similar discolorations occurred in the perineal region on the scrotum and around the anus. In the severer forms particularly the backs of the hands, sometimes exhibit small bladder-like elevations filled with serum, which later burst, leaving superficial ulcers that heal very slowly; occasionally similar lesions are found on the backs of the feet and even on other parts of the body. It is said that in rare instances the erythema may cover the entire body. In the mildest forms of the disease no skin lesions occur..

On microscopic examination, as first shown by Babes and Sion, sections of the hyperemic skin exhibit a slight serous exudate with a few luccocytes, and peculiar homogeneous, metachromatic masses of what appears to be coagulated

albumin; the sweat glands contain metachromatic granulations. The small nerves show practically no change.

In the stage of desquamation the changes are much more pronounced. There is hyperkeratosis with shedding off of the corneous layer of the epidermis; the inner epithelium layers contain much yellow pigment. The papillae contain numerous lymphocytes and plasmacells, with quite a remarkable absence of mast-cells in all cases that I myself have examined. The sweat glands are hypertrophied, and the sebaceous glands are dilated and often contain bacteria. The skin is thickened as a result of the increased blood supply, and from the presence of swollen degenerated elastic fibers and the peculiar hyalin albuminous substance already referred to.

Where ulceration occurs there is complete absence of the epithelium layer, with more or less substance on the surface of the derma. The elastic and connective tissues that form the bulk of the latter structure undergo degenerative changes on the surface, and there are found in the diseased structures polymorphonuclear leucocytes, a considerable serous exudate, and numerous bacteria. Somewhat lower down plasma and lymphoid cells are quite numerous.

TONGUE:

The tongue undergoes marked changes in pellagra. In the earlier stages the epithelium shows much the same alteration that is observed in the epidermis in the affected areas on the skin. At a later time the epithelial cells shed off around the edges of the tongue, and this may progress until the entire structure appears bare, but a thin epithelium layer may be still demonstrated by means of the microscope. Numerous deep furrows often appear on the back of the tongue as the disease progresses, and its tissues become red. Ulceration is then apt to occur,—first around the edges of the tongue, and in some cases, at a later time, on any part of its surface. Microscopically these changes are practically similar to those occurring on the skin.

CHEEKS AND GUMS:

Similar alterations are found on the

gums and on the fuceal mucous membrane, and at certain stages, in many cases in the pharynx. As the disease progresses the back of the pharynx assumes a deep red color, sharply circumscribed and symmetrical, this discoloration may be seen advancing forward over the surface of the soft palate in some instances

STOMACH.

The mucosa of the stomach is often found pale, and its walls dilated as a consequence of atrophy of its muscular coat in some cases its surface is quite red in the pyloric region.

INTESTINES:

Similar alterations are found in the intestines. Anemia or hyperemia are particularly frequent in the jejunum, and ulcers are apt to occur in this situation, and even more often in the ileum. Similar lesions are occasionally found in the large intestine. Not uncommonly the walls of the gut are thinned. The alteration last mentioned is of some historic interest, as the Italian Labus claimed in 1846 that it was characteristic, and it is only after this view had been contradicted by Morelli, and later by a commission appointed by the Congress of Geneva, in 1847, that it was finally established that this lesion is inconstant, and by no means the anatomical criterion of pelagra, as had been claimed.

MESENTERIC GLANDS:

These structures have been occasionally found hypertrophied.

SPLEEN:

The spleen is usually diminished, occasionally hypertrophied, though it is sometimes increased in size. In five of my post-mortems the organ weighed, only once, as much as 1010 grams. Cirrhosis is now and then found. Microscopically the cells of the peripheral portion of lobules are frequently quite fatty, though this alteration is so frequently observed under other circumstances that it scarcely has any significance. The central vein of the lobule has been often times found dilated.

KIDNEY:

The kidneys are usually decreased in

size, but are frequently found to be normal. Cysts in the cortical portions are frequent as a consequence of the scar formation in the viscera. Microscopically they often show the characteristic changes of interstitial nephritis, with which all are familiar, and which therefore it is unnecessary to detail here. In some instances the only alteration has been found to be fatty changes in the epithelium lining of the tubules.

ADRENALS:

The adrenals are normal.

LUNGS:

It is rather curious that tuberculosis is rarely found in the lungs of the pellagrrous, but hyperemia, oedema, and emphysema are occasionally encountered and pleurisy with effusion is not unknown: all of these changes are evidently in the nature of complications.

HEART:

The heart is often slightly atrophied, and has been found fatty and the fibers pigmented in some cases this is evidently secondary, and of no significance. The pericardium is usually normal.

OSEOUS SYSTEM:

The bones are often friable.

MUSCULATORY:

The muscles are usually atrophied, but are sometimes normal.

BRAIN:

Writers such as Strambacic, Fanzago, Leghano, Verga, Labus, Mardi, Carraro, Fantometti, Rizzi, Gorno, Girelli, Biscia, Frank, Bayle, Lallemand, Meckel, particularly Roussel, and others, seem without exception to have found nothing further wrong with the brain than more or less oedema of the pia-arachnoid, along with thickening, or thinning, or adhesions in some cases. In 113 post mortems, Lombroso found in addition to the change first mentioned, a trophy of the brain in 11 cases, with occasional hardening of its tissues; in 18 out of 28 cases, the brain weighed less than normal, but on the other hand, was increased in this particular in 7 instances.

By far the most interesting communication that had, up to that time, been made on the changes in the brain, was an article by Babes and Sion, in 1899. They showed the presence in the nerve cells, particularly in the large chromophilic cells, in the cortex, the presence of unmistakable degenerative changes. The tigroid bodies lose their power of staining with basic dyes, and the cell becomes swollen and vacuolated. The Neuclei are frequently pushed to one side, and lose their power of taking basic stains and present swollen nucleoli; the pigment in these cells is also dislocated, and instead of being around the nucleus lies scattered throughout the cell-body. The processes of the cells often appear to be broken off, and seem swollen. The pericellular lymph spaces are dilated, and the walls of these cavities are frequently lined by yellow pigment. In the brain tissue, small collections of lymphoid cells are frequently encountered, and the neuroglia cells in the vicinity of the blood vessels are swollen. These alterations have been in the main confirmed by Marinesco, Rossi, Richette, Grimaldi, and myself in this country, and are of great interest and importance. In addition to the changes mentioned, I would remark that in all of my cases the small vessels of the brain seemed unusually filled with blood, and the privascular lymph spaces are quite uniformly dilated. There were no collections of lymphoid cells anywhere in the tissue. The nerve cells showing degenerative changes usually measured less than the normal ones, and always contain a greater or less amount of acidophilic protoplasm. The cells suffer to a varying degree in different parts of the brain. Parhon and Papinian have demonstrated, as might have been expected, that the neuro-fibrils of the cells show degenerative changes.

Alterations similar to those found in the cerebrum have been observed by me in the nerve cells of Purkinje. The cell protoplasm loses its affinity for basic stains, and the nucleus undergoes a similar change. The cells contain a finely granular protoplasm that takes acid stains, and in many of the cells only the nucleolus retains its power of absorbing

basic dyes. The nucleus does not seem to be dislocated in these cells so often as in the pyramidal cells. In all of my cases it was quite evident that many cells of Purkinje had undergone degeneration and entirely disappeared. In one instance this change was most striking; in this case the molecular and granule layers were in many places separated by microscopic spaces that probably existed during life, and having the same significance as the dilated lymph spaces. These cerebellar alterations probably explain the atoxic forms of the malady. So far as I am aware, no one has previously observed these alterations in the cerebellum.

SPINAL CORD.

Changes in the nerve cells of the spinal cords are practically in every way identical with those occurring in the brain, well described by Babes and Sion in the paper already referred to, and have since been confirmed by all who have studied the subject. They show every stage of degeneration from slight loss of chromophilic substance to practical destruction of the cell-body. In 1883 and 1884, Tonni degeneration from slight loss of chromoteral columns of the cord, and somewhat later, in 1890, Belmondo demonstrated the frequent occurrences of corporal amylacea in both the grey and white substance, and the presence of changes leading to obliteration of the central canal. Along with this there was increase in the neuroglia fibers, and atrophy of many of the nerves. In 1893 Tuczec published an excellent monograph on the histology of the central nervous system in this disease. Out of 8 cases he found combinations of the posterior and postero-lateral column of the cord, and in two instances a similar change in columns alone, he confirmed the frequency of the obliteration of the central canal described by Belmondo. He also called attention to the curious fact that portions of the gray substance in the cord are frequently found apparently detached from their

normal situations, and even lying as isolated bodies in the surrounding white substance; under such circumstances the cord is more or less deformed in appearance. In 4 out of 5 post-mortems, I have found similar scleroses, and in every instance pronounced changes in the ganglion cells similar to those described by Babes and Sion. I have also, in four out of five cases, found the central canal obliterated, though in no instance throughout its entire course; the changes are most pronounced in the lower cervical and dorsal regions.

In one instance I have encountered a typical "meningo-myelitis acuta," such as described by Balmondo. Although the post-mortem was made only a few hours after death, the cord was very soft and on microscopic examination was found to present alterations of a most pronounced kind. The myelin sheathes of the nerve fibers showed marked degenerative changes, and the nerve cells of the gray substance exhibited to a high degree the alterations already described. Corpora amylacea were especially abundant throughout both the gray and white substances.

SPINAL AND SYMPATHETIC GANGLIA.

The ganglion cells of these structures exhibit changes similar to those found in the central nervous system, though they are not as a rule so marked.

EYES.

From the results of the work of Beitti, it is not improbable that circulatory changes are frequent in the central nervous system in pellagra, as he has shown that in quite a proportion of the cases the retina is anemic, and in about the same percentage the opposite state of hyperemia occurs.

PERIPHERAL NERVES.

It has been claimed by some that the alterations have been found in the peripheral nerves, but this remains without confirmation.

Pellagra—Its Etiology, Pathology, Diagnosis and Treatment.

By C. W. G. ROHER, M. D. Medical Assistant to State Board of Health of Maryland

DEFINITION.

Pellagra is a specific infectious disease, due to a parasite fungus, namely, the *Aspergillus fumigatus*. Locally, pellagra is characterized by an erythematous desquamative inflammation of the skin and generally the disease is characterized by the formation of tumor-like masses or granulomata in various parts of the body. Constitutionally, the disease is complicated by digestive and neurotic derangement.

The disease may be either acute or chronic. A majority of the cases, however, are of chronic duration.

In the state of Maryland, but three cases, two by Dr. Wm. S. Thayer, of the Johns Hopkins University, and one by the present writer, have been reported up to the present time.

CLASSIFICATION.

Pellagra should be classified along with tubercle, lupus, syphilis, glanders and farcy, leprosy, actinomycosis and rhinoscleroma, as one of the infective granulomata. The abundant presence of tumor-like bodies, especially in the kidneys, lungs, brain, stomach, intestines and spleen, makes the present writer feel justified in vouchsafing this assertion. The superficial portions of the lungs and brain, especially the walls of the blood vessels, show them most abundantly. These small, nodular lesions, when examined by the microscope, resemble very closely a tubercle with the giant-cells removed from its centre, or a syphilitic gumma with the giant-cells eliminated from its periphery.

OCCURRENCE IN ANIMALS.

Recently M. Muller, in the Journal of Comparative Pathology and Therapeutics, described several outbreaks of an enzootic character occurring in lower Alsace-Lorraine, and affecting horses, cattle and sheep. The disease, it is stated, was caused by feeding with musty fodder. The principal symptoms consisted in myopathic paresis or paralysis, and in the oxen and sheep in excessive salivation. The pulse and respirations were teria were looked upon as secondary in-

only increased in old standing cases. There was no fever and the sensorium did not appear to be affected. Occasionally animals recovered after a very long period of convalescence.

The so-called cornstalk disease, prevalent among cattle in the west, is probably allied to pellagra. "Blind staggers," and many doubtful cases of cerebro-spinal meningitis in horses are believed by

The disease has been produced experimentally in dogs and in chickens.

ETIOLOGY.

The causes of pellagra are predisposing and exciting. The principal predisposing cause is the eating of improperly cured maize or Indian corn. Chronic diarrheal and dysenteric disorders, especially of an ulcerative type, have also been recently advanced as possible predisposing causes. Impure drinking water, it is alleged, may bring about these intestinal lesions, and thus open up avenues of entrance for infection with pellagra.

The use of corn products as a predisposing cause was well established in the fatal case which this writer studied. After the disease had become plainly evident, the patient stated that she could no longer eat corn bread, because it "went right through her."

As no ulcers were found at autopsy in either the stomach or in the intestines, this writer believes their presence to be accidental or due to other causes.

The exciting cause of pellagra was formerly believed to be a parasitic fungus, *Sporisorium maidis*, which produced a diseased condition of Indian corn. Today it is pretty generally conceded that pellagra is caused by *Aspergillus fumigatus*. Some of the fall cases may be due to *Aspergillus flavescens*.

Several observers have found bacteria in the circulating blood of pellagrous patients, and ascribed to them a possible etiological significance. During life, no bacteria were found in the circulating blood of the one fatal case recently studied by the present writer. After death numerous bacterial emboli were found in the various viscera and organs, notably in the liver and in the lungs. These bac-

*Read at the National Conference on Pellagra, Columbia, S. C., Nov. 3-4, 1909.

vaders, and not as causative factors.

According to observations made by the present writer, the *Aspergillus fumigatus* grows not only upon corn, but also upon peas, beans, and other podded or leguminous plants. It also grows upon buckwheat beaten to the ground by heavy rainstorms.

During a wet season leguminous plants, such as peas and beans, are liable to rest upon the damp ground and thus form a nidus or hotbed for the growth of the *Aspergillus fumigatus*. Buckwheat is sometimes similarly affected. An ear of corn, however, is the most frequent habitat, of the now conspicuous. *Aspergillus fumigatus*. The warmth and moisture generated by an ear of corn during an unusually wet season, or within the husk of an ear of corn harvested a little too green, furnish ideal conditions for the propagation and growth of the *Aspergillus fumigatus*.

Another factor hitherto overlooked in the causation of pellagra is the harvesting of corn by machinery. The present writer believes the corn harvester has had much to do with the fairly wide prevalence of pellagra in recent years. To this new departure in agricultural methods should be attributed at least two-thirds of the cases of pellagra. The "corn harvester", therefore can be classified as one of the "predisposing causes" of pellagra.

Corn cut with a harvester is usually bound tightly into small bundles, and hence cannot properly dry and cure. Occasionally it lies upon the damp ground several days before it is placed in the stock. Harvesting while damp or a little too green also helps engender conditions favorable for the growth of the *Aspergillus fumigatus*.

Corn harvested in the old way by hand is not bound into bundles, and is placed more loosely in the shock. The atmospheric air, as well as the heat and light of the sun, has free access to the ripening ears of corn, and as a rule they cure properly.

PATHOLOGY:

As has already been stated, the present writer believes that pellagra should be classified with the infective granulom-

ata. When examined by the microscope these small tumor-like nodules or granulomata are seen to be composed of a necrotic centre surrounded by spindle-shaped cells and small round cells, very much like a tubercle or a gumma minus giant-cells.

These granulomata are most abundant in the walls of the superficial blood-vessels of the lungs, especially those of the upper lobe of the right lung. Next to the lungs rank the superficial blood-vessels of the brain, thus furnishing a pathological basis for the distressing mental symptoms apparent in the last stages of the disease. Granulomata are also found in the stomach, intestines, spleen, kidney and uterus.

Another feature is the intense congestion noticeable in practically all the tissues and organs. An extreme degree of gastroptosis and enteroptosis was also pointed out at the autopsy. The liver showed chronic passive congestion, with numerous bacterial emboli in its smaller vessels. The stomach at its lower fourth is encircled by many varicose veins. Attached to several of these veins is a polypoid growth. The kidneys contain several small cysts, and show a condition of chronic diffuse nephritis. Numerous necrotic areas are also seen. The cortex is narrow, measuring but one-eighth of an inch. Numerous granulomatous masses are found in the walls of the uterus. There is a mucopurulent discharge from the internal os. The fundus of the uterus is filled with blood and pus. Hence it would seem that the toxic products elaborated during the growth of the *Aspergillus fumigatus* have a special predilection for the female uterus, similarly to those generated by the fungus causing ergot of rye, namely, *Claviceps purpurea*. The heart weighed 5 1-2 ounces, and its interior was filled with white clot. The proportion of the weight of the heart to the weight of the body was as 1 to 233, the patient having been reduced to eighty pounds in weight. The heart also showed the condition known to the Germans as "drop heart." With the exception of slight degeneration of the posterior columns of the cervical portion, the spinal cord shows no conspicuous

change. The blood vessels of the brain contain numerous granuloma-like masses. The brain weighed nearly 44 ounces. The skin shows degeneration of its epidermic layers. The deeper of these have been transformed into keratin; the superficial layers have become gangrenous. The cutis vera or true skin shows little or no involvement.

DIAGNOSIS.

The diagnosis of pellagra rests upon the history of the case, and the characteristic symptomatology. The one fatal case which eventually came under my observation had suffered many diagnoses and much treatment, all, however, of no avail. The last diagnosis made before my advent into the case was "Chronic eczema."

A history of the use of corn products as a staple article of diet is very suggestive. My fatal case, as her family informed me, had eaten corn bread every day of her life, both summer and winter.

The characteristic triad of symptoms are:

1. Gastro-intestinal.
2. Erythema.
3. Nervous.

The gastro-intestinal derangement is usually the initial symptoms of pellagra, dyspepsia, diarrhea and stomatitis are the cardinal symptoms referable to the alimentary canal. My patient had complained greatly of her stomach for three or four years prior to the appearance of the skin lesions. She always drank hot water before meals—the conventional "hot water cure for dyspepsia." About the same time she had to desist from eating cornbread, owing to an obstinate diarrhea which it caused.

In my patient the skin symptoms began with unfailing regularity toward the last of April. The skin lesions were first apparent in April, 1907. They began as "small, broad, scattered bumps." The patient and family thought it was poison oak. One of the neighbors also diagnosed it as such, and prescribed a soda water wash; later, she prescribed local applications of hog's lard. The skin lesions first appeared on the dorsal surfaces of both wrists. About a week

afterwards these areas "turned red as flannel." From the wrists the erythema extended to the backs of the hands and fingers. About two weeks after the disease had become apparent upon the wrists the feet were affected. The dorsal surfaces of both feet were first attacked, and then the ankles. Red spots also appeared upon both knees. Several days before the feet became affected, the classical red band appeared upon the forehead. The erythema, characterized by its fiery redness, always appeared toward the end of April, and lasted from three to four weeks. At the expiration of that time it disappeared entirely.

The second attack, occurring in April 1908, was more severe and prolonged. The erythema again entirely disappeared in about four or five weeks. In April of the present year (1909) the disease recurred for a third time. This third and last attack was more severe than either of the others. The erythema faded slightly, but symmetrical gangrene of both feet resulted. She grew gradually worse, and died August 20th, 1909. The nervous symptoms were not markedly manifest until a few weeks prior to my patient's death. She was delirious at times, and always thought that somebody was going to kill her. My patient did not have any convulsions, but at times was in a stupor. My patient suffered but little pain. The skin from the diseased areas could be cut or torn without entailing any suffering. She was very sensitive, however, to heat and cold. For about a year and a half, so the members of her family stated, she was getting thin in flesh, hollow-eyed, and of a swarthy complexion.

TREATMENT.

The treatment of pellagra, like that of other infectious diseases, may be either prophylactic or curative. Prophylaxis, however, is the more important. Right here, and in the following words, I wish to sound the keynote of this conference, *Upon proper prophylactic measures depends the suppression of pellagra.*

The essential prophylactic step can be summed up in the one terse sentence—discontinue the use of spoiled maize or Indian corn. It were better perhaps

to institute measures to prevent corn from becoming musty or spoiled. The proper curing of corn is a *sine qua non* in the prevention of pellagra. This can scarcely be hoped where corn is cut by machinery. Leguminous plants and buckwheat, which have lain upon the damp ground, should not be used for human food.

The curative or medical treatment of pellagra is notoriously unsatisfactory. In brief, it is a feeble attempt to combat the symptoms as they arise. The question of diet is all-important. Avoidance of the suspected cereal and the substitution of other food, easily assimilable articles of food is the one thing needful. Among drugs ferruginous tonics and arsenical preparations are indicated. The stock diarrheal mixtures are advocated for the gastro-intestinal irritation. Opiates may be called for, if the tenesmus be great.

My patient received one-half ounce of whiskey and one-fortieth of a grain of strychnia sulphate every four hours. Her appetite was poor, and about the only thing she relished was ice cream. Five-minim doses of atoxyl were given hypodermically every four hours, but without any appreciable results.

Dr. Wm. S. Thayer, of the Johns Hopkins University, apparently cured one of his cases of pellagra by the use of thyroid extract. He gave three 2-grain doses of desiccated thyroids a day for several weeks, and then decreased the dose to four or five grains daily, continuing the same for several months.

SUMMARY AND CONCLUSIONS.

1. But three cases of pellagra have been reported in Maryland, up to the present time. Two of these were reported by Dr. Thayer, and the third by this writer. Thanks are due my able chief, Dr. Marshall Langton Price, Secretary to the State board of health of Maryland. For an opportunity to study the prevalence of pellagra in Maryland.

2. Pellagra is an infectious disease, produced by the *Aspergillus Fumigatus*. The *Aspergillus fumigatus* is not very tenacious of life. Not infrequently it is overgrown by the common blue-green mould (*Penicillium crustaceum*),

or much less frequently it is overgrown by common white cottony mold (*Mucor mucedo*); hence the confusion in regard to etiological factor. The *Aspergillus flavescens*, to which the so-called fall cases of pellagra are attributed, is probably a slightly modified *Aspergillus fumigatus*.

3. Personally I believe the appellation "fall attack" of pellagra to be a misnomer. It is merely a recrudescence. In the summer there is a temporary abatement of the symptoms due to the use of fresh vegetables and fruits. Upon the resumption of dry foods in the fall of the year, there is a flaring up of the spring attack.

4. Pathologically, pellagra should be classified with the infective granulomata.

5. The following is additional evidence that pellagra is due to a fungus: The skin lesions in pellagra are similar to those produced by an allied fungus, namely, *Claviceps purpurea* the organism which excites the growth of ergot of rye.

6. It was definitely proven that musty corn was the cause of my fatal case of pellagra. To prevent pellagra, corn meal should be made from properly cured corn. Also, avoid eating leguminous foods, (peas and beans), and buckwheat, the pods of which have lain on the damp ground. The *aspergillus fumigatus* sometimes grows upon these articles of food, but the role which they play in the causation of pellagra is a minor one.

7. Meteorological conditions, especially in the great corn belt, have much to do with the prevalence of pellagra. Many cases are apt to follow a wet season, while comparatively few will develop after a dry season. A wet season furnishes ideal conditions for the growth of the *Aspergillus fumigatus*. The past season has been remarkable dry one, hence we need not expect a new outbreak of pellagra for sometime to come.

8. The harvesting of corn by machinery, that is, the use of the corn harvester, sometimes called the corn binder, is responsible for the alarming prevalence of pellagra in recent years. The corn is bound into bundles and cannot ripen or mature properly, owing to exclusion of the air and sun; a favorable

environment is thus afforded for the growth of the *Aspergillus fumigatus*.

TRANSFUSION IN PELLAGRA

By H. C. COLE, M. D. and GILMAN J. WINTHROP, M. D. Mobile, Ala.

The existing uncertainty as to the etiology and as to the toxin or toxins producing the symptoms of pellagra, prohibit, at present, the formulating of a scientific or rational therapy. Any remedial or surgical measures employed must, necessarily, be based on empiricism and experimentation.

Study of the etiology of the disease, chiefly by Italian and German workers and more recently in this country, has led to three chief theories as to the cause of pellagra. Firstly, the maize or "zeist" theory, which holds that decomposition of the oils or "zein" of corn produces the poisons causing pellagra. Secondly; the "verdet" theory of Lombroso, which claims that the growth of certain fungi, penicilli and aspergilli, on maize produces a toxin. The ingestion of this toxin containing corn produces pellagra. Thirdly, the microbic or bacterial theory, suggested by Tizzini, Panichi and others, which supposes that pellagra is due to a specific bacterium which grows on maize and elaborates characteristic toxins.

That maize, especially when exposed to moisture and heat, bears a close causative relation to pellagra is rather generally conceded. Whether the toxic principles are developed in the corn itself or whether maize is pathognic only in so far that poisons can develop in it by the action of micro-organisms is still a matter of speculation.

The discussion as to the theories of the etiology of pellagra is beyond the scope of this paper. We shall confine ourselves to a consideration of the theories experiments and facts bearing on the nature and action of the toxic substances of pellagra, no matter what be their origin and suggest the possibility of combatting these toxins *invivo* by antagonist

ic substances formed in the body by natural or acquired immunity.

Granting, as seems justifiable, that pellagra is an intoxication, let us consider the work done as to the biologic actions of the toxins.

Tizzoni (1) has shown that by injecting the blood of pellagrous patient into animals, typical symptoms of the disease are produced. This may be explained by the passage of toxins from the affected to the non-affected animal, or as Tizzoni suggests, to the transmission of living (toxin bearing?) bacteria specific of the disease.

Lombroso (2) claims to have produced typical pellagra manifestations by the administration of an alcoholic extract of impure maize ("pellagrozein.")

These experiments seemingly prove the existence of a toxic principle capable of producing pellagrous symptoms, laying aside any consideration as to their chemical, microbic or fungous origin.

Admitting, then, the existence of specific toxins, may we not rationally consider the probability that the body tissues form anti-bodies or anti-toxins to combat their action? Much of the late work on sera and toxins tends to answer this supposition in the affirmative.

Babes (3) and other workers have found in the serum of pellagrins a substance antagonistic to the extracts of damaged maize, that is a specific anti-toxic body.

Giovanni and Gatti (4), from their work on pellagrous serum conclude that the serum of pellagrins has a hemolytic action much above normal demonstration the presence of an anti-body. They further claim to have demonstrated precipitative properties in pellagrous blood.

D'Ormea (5), working independently, likewise concludes that there is a definite specific anti-body developed in pellagrins.

*Read at the National Conference on Pellagra, Columbia, S. C., Nov. 3-4, 1909.

Antonini and Marianni (6) claim that a definite immunity is developed in cured cases of pellagra and that the serum exhibits a definite anti-toxic action against maize poisons. They have developed an artificial immunity in rats, rabbits, and goats, against pellagrous toxins. Finally they conclude that a serum therapy can be instituted in grave pellagra cases.

Accepting the statements of these workers, we are led to the following conclusions:

1. Pellagra is an intoxication.
2. The toxic principles of pellagra exist in the blood of pellagrins and will produce pellagrous symptoms when transferred to other animals.
3. Pellagrous serum exhibits definite precipitative, hemolytic, and antitoxic properties.
4. An artificial immunity can be produced in animals and exists in cured pellagrins.

Our work in pellagra was undertaken independently of any knowledge of the researches of others, as to the existence of anti-bodies in pellagra. Being interested in the subject of transfusion, and working on its effect in shock and hemorrhage anemia in dogs, we were led to try transfusion in pellagra, at first, simply as a relief for the existing anemia in these cases. The possibility of the existence of a specific curative agent, of the nature of an antitoxin, performed in cured cases, and which might be transfused with the blood, very naturally suggested itself.

Through the kindness of Drs. McCafferty and Tisdale, of the Mt. Vernon Hospital, we were enabled to perform a transfusion in a severe case of pellagra using a cured case of pellagra as the donor. As far as we are able to ascertain this is the first transfusion performed in pellagra (7). The results of this first transfusion were quite suggestive and led to further experimentation. The results and conclusions of some nine cases of pellagra, so far transfused, are noted in the second part of this paper.

The difficulty of securing cured cases as donors has forced us to employ normal, healthy individuals in a number of our transfusions. We have chosen these non-pellagrous donors from among per-

sons living in the same surroundings, eating the same food, and subject to the same chances of infection as the patients themselves. It is possible that these donors have developed a certain amount of immunity and certain anti-toxic bodies in their blood. Whether these anti-bodies be present or not, the amount of blood furnished on transfusion must, at least, combat the existing anemia and stimulate the protective and recuperative activities of the recipient.

The number of cases of pellagra so far treated by serum injection and direct transfusion of blood is too small to permit of final deductions as to their therapeutic value in the disease.

We attempt to give below, a resume of the cases in which serum therapy and blood transfusion have been employed. The date for this report has been obtained from monographs and personal communications with the various workers.

The curative value of pellagrous serum has been chiefly tried by the Italians. Antonini and Marianni (8), using the serum of recently recovered typhoid types of pellagra, note cures in several severe cases. Their work was most carefully performed and the potency of the serum was tested on animals before being administered to patients. Lombroso in a personal communication to the authors of this paper, comments on the work of Antonini and Marianni (11), and states that the use of serum is of undoubtedly value in the treatment of pellagra.

Dr. Lavinder, of the Marine Hospital and Public Health Service, has employed serum in the treatment of two cases of pellagra. The first case received but one injection of serum and died within three days of an intercurrent pneumonia. The second case received four injections and at first seemed to improve, but this was not continuous and at the last report the patient was "steadily losing ground."

The belief of the Italian workers in the efficiency of pellagrous serum will, we hope, lead to a more extensive trial of this most simple therapeutic measure, and so furnish information as to its true value.

Besides our nine cases of direct blood transfusion in pellagra, which are given

in detail below, we wish to note two other cases. Drs. Wood & Green (9) of Wilmington, N. C. transfused a case of three years duration. This case which they state was in a "hopeless condition," received about six to eight ounces of blood on transfusion. No apparent improvement was noted and the patient died. The second transfusion to be noted was performed by Drs. McCafferty and Tisdale, of the Mount Vernon Hospital, Mt Vernon, Ala. The patient was transfused from a cured case of pellagra and received approximately a pint of blood. Five days after transfusion, the skin lesions began to disappear and in fourteen days the patient was up and walking about.

TECHNIC.

The following cases were transfused by the canula method of Crile or by the suture method of Carrel.

REPORT OF CASES.

Case 1: Alice F., aged 25, colored. Referred by Dr. McCafferty and Dr. Tisdale Mt. Vernon, Ala.

This patient has had pellagra for three weeks and presents, on examination, the characteristic skin lesions over the hands, arms, face and legs. There is a stomatitis so severe as to seriously interfere with nourishment, incontinence of the bowels, marked emaciation and asthenia. Hemoglobin 70 per cent.

The patient is in a moribund condition.

Transfusion—Aug. 3, 1908. The donor is a well nourished negro woman who recovered from a severe attack of pellagra one year ago. There was a good transfer of blood for about twenty minutes.

August 4—Twenty four hours after the operation the recipient shows marked signs of improvement both in her mental and general condition.

August 7.—Four days after the transfusion the patient has improved markedly and is walking about the ward.

This patient went on to rapid recovery. She has presented no symptoms of the disease since the operation performed fourteen months ago. The recovery in this case was so immediate and complete as to be extremely suggestive.

Case 2: Bessie B., age 22, Referred by D. D. Armstead, Campbell, Ala.

For the past four years this patient has had attack of sore mouth, diarrhea and indigestion, beginning in the spring and lasting about six months each. During these attacks the patient was confined to her bed. About fourteen months ago, a red eruption appeared over the back of both hands and wrists. This was never painful, and disappeared in a few weeks. The patient has had sore mouth ever since the eruption appeared and there have been four or five soft bowel movements a day, for the past four months. For several weeks there have been marked mental and nervous symptoms. These are increasing in severity. Sensory symptoms have been present in the feet and head. In the past eight days, there has appeared an erythema over the dorsum of each hand, this has extended well up on the forearms, has become pigmented and has been associated with burning and pain. Coincident with this, there has been an exacerbation of the mental and nervous symptoms. There has developed a pulse rate out of proportion to the temperature.

On examination the patient presents marked emaciation and asthenia. Weight sixty pounds; average weight, one hundred pounds. Hemoglobin 75 per cent.

There is a dark dry pigmented eruption on the backs of both hands extending well up on the backs of both forearms. There are marked mental and nervous symptoms. Muscular reflexes are increased. Transfusion, July 3, 1909. The donor is a strong healthy male adult, a brother of the patient. The donor has never had pellagra. There was a good transfer of blood for thirty minutes. The donor had an attack of syncope upon leaving the operating room.

July 4.—Twenty-four hours after the operation there are marked signs of improvement.

July 7—Four days after the operation the skin lesions began to desquamate.

The marked nervous and mental symptoms began to rapidly disappear and were almost entirely absent within a week from the day of transfusion. The sore mouth disappeared within four days. The bowel movements were less frequent after the fourth day, and entirely disappeared within three weeks.

July 13.—Ten days after the operation, the patient weighs sixty-eight and one-half pounds, a gain of eight and one-half pounds.

The patient returned home, and has steadily improved. Three months after the operation she states that she is stronger, and has gained about fifteen pounds; that there are neither eruption, diarrhea, nor mental symptoms.

This patient has made a gradual improvement from the day of operation and will eventually recover entirely.

Case 3.—Annie H., age 42, white. Referred by Dr. P. A. Trice, Morvin, Ala.

One year ago, this patient had an attack of diarrhea of six months duration, there is also an indefinite history of erythema over the backs of both hands at this time. There was marked asthenia, anemia and emaciation during the attack. There is a history of nervous excitability, but no mental disturbances. There is no history of sore mouth.

On examination, the patient shows indefinite signs of an old desquamative skin lesion over the backs of both hands, increased reflexes, asthenia, nervous excitability and a marked grade of anemia. There is considerable emaciation, the patient stating that she has lost thirty or forty pounds in weight.

Transfusion, July 18, 1909. The donor is a healthy adult male, (patient's husband.)

There was a good transfer of blood for twenty minutes, July 21, three days after the operation the patient shows definite signs of improvement.

Twelve weeks after the operation her physician writes that her physical condition is better, that she has gained fifteen pounds in weight, that her anemia is much improved. The patient herself says that she is stronger than she has been for the past three years.

Case 4—Mrs. T., age 27, white. Referred by Dr. Bailey, Demopolis, Ala.

This patient developed an erythema over the backs of both hands six weeks ago, this extended to the fore-arms, elbows, sides of the neck and upon the face. This has been associated with a marked stomatitis and nausea in the past three days. The stomatitis has been so

severe in the past few days as to seriously interfere with feeding. There has been a profuse diarrhea and an increasing asthenia, anemia and emaciation. The nervous symptoms have been pronounced in the last few days.

On examination, the patient is found to be in a practically moribund condition, an ulcerating and deeply pigmented eruption covers the dorsal surfaces of both hands, forearms and the sides of the neck. There is a deeply pigmented mask over the entire face. There is ulceration of the mouth, a swollen blackened tongue protrudes from the parched and ulcerated lips, from which there constantly drools forth a fetid slimy discharge. This pigmentation extends over the legs and feet as well.

The patient is markedly emaciated and presents a terminal stage of anemia. The reflexes are almost absent, there is incontinence marked anemia and frequent emesis. Pulse 150-160. Transfusion July 11, 1909. Two donors.

The first donor is a white adult female, who recovered a few weeks ago from a severe attack of pellagra. A good transfer of blood was obtained for ten minutes, when the transfusion was discontinued, on account of the weakened condition of the donor.

A second transfusion was performed from a healthy adult male (the patient's husband), who has never had pellagra. A good transfer of blood was obtained for fifteen minutes. The transfusion was then discontinued on account of the weakened condition of the recipient.

This patient was in a hopeless condition at the time of operation, and showed no signs of improvement after the operation. The patient died three hours after the operation.

Case 5.—Mrs. B., age 58, white. Referred by Dr. Bondurant, Mobile, Ala.

This patient was treated by her family physician, Dr. O. G. Bruner, of Fort Deposit, Ala., for a persistent case of diarrhea, extending over a period of over two years. One year ago there appeared an eruption over the backs of both hands, this was followed by desquamation. This eruption reappeared in the spring of 1909 about six months before transfusion, and

a few weeks before transfusion the patient developed marked mental and nervous symptoms.

On examination, there are remains of a desquamating skin lesion over both hands and forearms. There are constant involuntary muscle tremors, increased reflexes and the mental condition is that of constant delusions and at times a muttering delirium. There is asthenia and marked emaciation, weight 70 pounds average weight 100 pounds.

Transfusion, July 17, 1907. The donor is a healthy adult male (the patient's son), who has never had pellagra. There was a good transfer of blood for twenty-five minutes.

July 18—Twenty-four hours after the operation the nervous and mental condition is improved. This patient gained 8 1-2 pounds in the first week, and went on to a rapid recovery.

Eleven weeks after the operation, the son writes that the mental condition seems perfect, there are no symptoms of pellagra, and there has been a gain of 34 pounds in weight.

Case 6—Mrs. H., age 50, white. Referred by Dr. Sarah A. Castle, Meridian, Miss.

This patient has had attacks of diarrhea associated with sore mouth for the past two years. Four months ago, the patient had an attack of diarrhea, of two weeks duration, and this was followed by a stomatitis that has grown very severe and persists. An eruption appeared on the hands about four weeks ago and extended over the forearms, face and legs. There have been marked nervous and mental symptoms for the past six weeks. This condition has been that of acute delirium at times. There have been severe sensory and motor symptoms and incontinence of the bowels, a condition present for about a week.

On examination, there is found an almost hopeless anemia and emaciation. A desquamating skin lesion extends over the hands, arms, legs and face. There is a drooling, fetid discharge from the mouth, a marked stomatitis, incontinence of the bowels, and at times a low muttering delirium.

Transfusion, July 22, 1909. The donor is an arteriosclerotic, plethoric male, (the

patient's husband) who has never had pellagra, age about sixty.

The anastomosis was accomplished with a great deal of difficulty, because of the extreme degree of atheroma present in the donor's radial artery. There was only a very small amount of blood transferred.

Transfusion, August 17, 1909. This patient made no definite signs of improvement, and was again transfused twenty-six days after the first attempt. At this time she was in the same physical condition, except for a much more severe anemia.

The donor is a female, age 18, (the patient's daughter). This donor recovered from a definite attack of pellagra two years ago. There was a good transfer of blood for twenty minutes.

August 18—Twenty-four hours after the operation, there is an aggravation of the mental symptoms.

August 23—One week after the operation, the patient has shown no definite signs of improvement, except that the stomatitis has cleared up to some extent. Death occurred four weeks after transfusion.

Case 7—Mr. G., age 30, white. Referred by Dr. J. L. Bryan, Greenville, Ala.

Six months ago, this patient developed an erythema followed by a pigmentation over the backs of both hands and forearms. During this period there has developed a severe diarrhea, mental deterioration and an extreme degree of emaciation.

On examination this patient presents marked asthenia and anemia. There are pronounced motor and sensory disturbances; a desquamating skin lesion still presents over the backs of both hands and forearms. The sore mouth and diarrhea, while present, are not severe at this time.

Transfusion July 25, 1909. The donor is a fourteen year old boy, (the patient's nephew,) who has never had pellagra. Because of the extreme restlessness of the youth, only a small amount of blood was transfused in the course of twenty minutes.

July 26—Twenty-four hours after the transfusion the patient shows no signs of improvement.

This patient became steadily worse and died August 20, twenty-six days after the transfusion.

This case was not transfused with any appreciable amount of blood.

Case 8—Mrs. S. H., age 30, white. Referred by Dr. Armstead, Nanafalia, Ala.

This patient had a severe attack of diarrhea about one year ago, associated with sore mouth and marked nervous and mental symptoms, duration two months. There were no skin lesions at this time.

The present attack began three weeks ago, with an erythema on the backs of the hands and wrists. This went on the induration, pigmentation and desquamation characteristics of the disease. This attack is associated with a severe ato-matitis. During this attack, the patient has had marked nervous and mental symptoms, and has become emaciated and anemic.

On examination there are the remains of a desquamating skin lesion over the dorsum of the hands, wrists, forearms, and elbows. There is stomatitis and a mild grade of diarrhea. The patient has lost about forty pounds in weight.

Transfusion July 25, 1909. The donor is a healthy adult male (the patient's husband) who has never had pellagra. There was an excellent transfusion of blood for fifteen minutes, when the operation was discontinued as the recipient showed signs of cocaineism.

July 26—Twenty-four hours after the operation the patient shows an improvement in her mental and nervous condition.

Ten weeks after the operation her physician writes that the patient has improved wonderfully since the operation. There is no skin lesion, no sore mouth, no diarrhea. The mental and nervous symptoms are much improved. The patient says that she feels better than she has in five years. She has gained about twenty-pounds in weight, and feels one hundred per cent. better than before the operation, according to her physician's statement.

Case 9.—Mrs. M., age 36, white. Referred by Dr. McMillan.

This patient has had attacks of severe diarrhea every spring for six or seven

years. These attacks were of about one month's duration and cleared up without medical treatment.

Eighteen months ago the patient developed, for the first time, an eruption over the backs of the hands. This eruption lasted about a month, and went on to desquamation without pigmentation. At this time the patient developed a sore mouth and salivation, which was present about one month. The patient had another attack of diarrhea about four months ago, at this time she was anæmic, emaciated, and showed marked nervous symptoms.

Four weeks ago sore mouth again appeared associated with diarrhea, anaemia, emaciation, asthenia, and an erythema which extended over the backs of both hands, well up on the forearms. This eruption became pigmented and desquamated. At this time the nervous symptoms were aggravated and there developed a mild grade of dementia.

An interesting point in this case is that there was a suspicion of diabetes for several years, and the patient was placed on a diet consisting largely of corn bread.

On examination she presents the remains of a desquamating skin lesion over the dorsal surfaces of both arms and hands. There is asthenia, emaciation and anemia. Hemoglobin 70 per cent. Weight 74 pounds, average weight 100 pounds. There is a profuse diarrhea. The mental condition at times is that of a mild dementia. Transfusion, October 18, 1909. The donor is a healthy adult male (the patient's husband), who has never had pellagra. There was a good transfer of blood for thirty minutes.

October 19—Twenty-four hours after the operation there is a distinct improvement in the mental condition.

Oct. 25—One week after the operation the patient has improved markedly in general condition, the mental symptoms have disappeared, the appetite is much improved and the patient has gained 7 1-2 pounds in weight.

It must be noted that the only medicinal agents used in the recovered cases, were tonics of strychnine, forced feedings, and in some cases carbonate of iron.

In every case benefitted by transfusion

the improvement was immediate, as shown by marked gain in weight within the first week, in one substance, as much as eight and a half pounds. All the patients two months after transfusion, are either apparently cured or markedly improved, and have gained from five to thirty-four pounds in weight.

Of the fatal cases; case No. 4 was moribund at the time of operation and died three hours after transfusion; case No. 7 received no appreciable amount of blood on transfusion; case No. 6, receiving practically no blood at the first operation, and at the second transfusion when a pellagrous donor was used while she

received a good flow of blood, her condition, we felt, was hopeless.

CONCLUSIONS:

We suggest the following conclusions:

- Transfusion offers a means of combatting the anemia, stimulating the recuperative functions and perhaps of furnishing antitoxic substances to pellagrins.

- The lessened mortality and marked improvement in transfused pellagrins leads us to anticipate the establishment of a serum therapy in the disease.

- Transfusion may be offered as a surgical therapeutic procedure in pellagrous cases pending the perfection of a successful serum therapy.

PELLAGRA IN YUCATAN

By GEO. F. GAUMER, M. D., Izamal, Yucatan, Mexico

Pellagra is a non-contagious, tropho-neuro-squamous, erythema, due to a specific cause.

HISTORY:

Although isolated cases of this disease may have existed in Yucatan at an earlier date, yet it was not until 1884 that it became epidemic.

In 1882 the locusts or grasshoppers invaded the state in such numbers that they destroyed every cultivated plant, and were especially destructive to the Indian corn or maize.

Corn being the only cereal used in Yucatan for bread, famine seemed inevitable until the merchants began to import corn from the United States. This importation of corn continued until 1891, when the country had recovered from the devastation of the locusts. The imported corn was brought from New York in the bottom of vessels as ballast and from careless handling and bad storage it was often rendered unfit for food. During the voyage this corn often got damp and even wet and by the fermentation caused by heat and humidity, a peculiar kind of fungus is developed which has been called "Sporisorium maidis." The constant eating of corn affected with this fungus produces a vitiated state of the blood

which leads to the slow development of pellagra.

Among the better classes the disease seldom made its appearance, whether this was due to the fact that having the facilities, their food was better cooked, or because, having the means to purchase the little corn produced in the state, they were but small consumers of the imported article, it was the middle and lower classes who, from reduced circumstances were obliged to purchase the cheapest corn in the market, that suffered most from the ravages of the disease.

While pellagra had been known for many generations in Italy, Germany, and other European countries, yet it had probably never before made its appearance as an epidemic in any part of America; and yet, there is no good reason why sporadic cases might not have appeared occasionally wherever corn was used as an article of diet.

From 1891 to 1901, Yucatan produced sufficient corn for home consumption, and new cases of pellagra were no longer to be found, while the old cases ran their course and nearly all those attacked in former years died from the effects of the disease.

From 1901 to 1907, the corn crops were almost total failures, and corn was again imported in greater quantities than ever before. Most of the corn came

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from the United States: Mobile and New Orleans being the chief sources of supply, the remainder coming via Vera Cruz from the interiors of Mexico, or nearly the same distance by water.

Pellagra again became epidemic, but was not then confined to the middle and lower classes, as in the former invasion. The wealthy hemp owners on account of the exorbitant prices paid for hemp, found it was more profitable to import than to raise corn for home consumption, thus compelling even well to do people to consume the imported article, as the home product was no longer sufficient for the wealthy families. Pellagra then spread alike among the rich and poor, until by the close of 1907, about 10 per cent of the inhabitants were victims of the disease, and at the present writing not less than 8 per cent of the adult population have pellagra.

PRODOMES:

Lassitude, ocular phenomina, vertigo, headache, general weakness and occasional digestive disturbances.

SYMPTOMS.

FIRST STAGE:

A patient upon first consulting a physician complains of a sensation of heat in the mouth, throat, and stomach, upon the exhalation of the breath; taste is impaired, there is anorexia, and frequently ptyalism with a broad flabby tongue irregularly marked by red blotches, a peculiar formication in the extremities which often extends very gradually to the whole of the body. About this time small, smooth and very lustrous specks make their appearance on the dorsal aspect of the hands and feet. These specks when first noticed by the patient are no larger than a pin head, but rapidly become more numerous until uniting they form lustrous patches which are checkered off in little squares, and these are separated by fine lines, thus giving the cutis a scaly appearance which is better seen by drawing the skin together with thumb and finger. This often covers the whole body, but is generally confined to the extremities, chest and back. The skin takes on a senile appearance and the itching becomes almost intolera-

ble, and if scratching be resorted to for relief, the burning that follows is unendurable.

About this time the strength begins to fail, and the patient walks with a heaviness and a peculiarity in his step that he does not understand, he can no longer find his way with closed eyes. The reflexes become greatly exaggerated and his movements are incoordinate. His sleep is much disturbed by hallucinations and strange dreams. During his waking hours he examines himself minutely and with frequency, and soon begins to carry on a constant though inaudible conversation with himself or some imaginary companion.

In conversation with other persons it soon becomes evident that the mind wanders, before completing one subject, another is begun, meaningless words are thrown in and as important ones left out. The patient's description of his disease becomes long and tedious, and he often ascribes as a cause of his present condition, some insignificant disease or injury that befell him in his youth, and ends up with the assurance that some person who, knowing of the circumstances, has taken advantage of the opportunity to bewitch him.

SECOND STAGE:

As time goes on the physical sufferings become greater and greater, the skin wrinkles more, the appetite fails, and this is due to the perversion of the special senses of taste and smell, so that the patient looks upon the most savory dishes all kinds of drinks and even his medicines as filthy substances calculated to aggravate his sufferings, if not to kill him. Hunger increases the mental derangements. Strength fails until the patient is confined to his chair or bed. The mind becomes more deranged as the itching and burning continue to rack his nervous system, so that he often seeks to put an end to his sufferings by committing suicide.

The bowels at first were often constipated, but as the disease advances a diarrhea sets in, which is accompanied by a progressive emaciation until the patient is reduced to a mere skeleton, or in some cases it passes into dysentery, which run

ning a rapid course soon terminates fatally.

THIRD STAGE:

Inasmuch as pellagra is a disease in which every symptom from its first appearance advances progressively to a fatal termination, the third stage is but the first and second in a state of progression in which the mental and physical phenomena predominate. Fear of impending danger often makes the patient want to flee from home and friends, and to take refuge in the forest, but upon finding himself devoid of strength and the power of locomotion, his fright increases and he strives to escape from an imaginary bondage. Friends are no longer trusted, but are treated as enemies.

All former symptoms are progressively intensified until the patient loses control of the mind and complete dementia generally occurs near the termination of the disease.

All psychosis are of the melancholic type, and tend to make the patient cowardly, rarely becoming aggressive.

Weeks, months and sometimes years are spent in this stage, during which time the patient gradually grows weaker until he is unable to swallow food or drink, to utter an audible word or to voluntarily move a single muscle; thus the spark of life is slowly but surely extinguished.

FORMS OF PELLAGRA:

In a practice of twenty-five years, I have been in the habit of recognizing three forms of disease known and treated here as pellagra. These I have classified according to their cause as pellagra, pseudo-pellagra and pelagia.

Pellagra is a disease whose origin can always be traced to the ingestion of spoiled corn.

Pseudo-pellagra; a disease whose origin can always be traced in the use of alcoholic liquors.

Prior to 1900 nearly all of the liquor consumed in Yucatan was distilled in the state, and came from sugar-cane or bee's honey, and up to that date pseudo-pellagra was quite unknown.

Since 1900, for various reasons, Yucatan has ceased to produce the liquors consumed by its inhabitants, and they are now concocted from alcohol distilled

from corn in the interior of Mexico, and essential oils skillfully prepared by experts in New York.

Since the artificial drink has been substituted for the pure distillate, pseudo-pellagra and other well marked derangements of the human organism have become quite common.

Pelagia, has no constitutional symptoms, and is purely a local condition due to exposure to the direct rays of the sun, and the inclemencies of the weather.

Any two or all three of these conditions may and often do exist in a patient at the same time.

In pseudo-pellagra as in pelagia, removing the cause cures the disease; although in most cases pigmentation remains through life.

Pellagra in its primary stages is often curable by the application of the proper remedies and by leaving off the use of corn. After mental phenomena have made their appearance the disease becomes incurable although by judicious treatment the course of the disease may be retarded and life prolonged.

In Yucatan, pellagra is not influenced by reasons as indicated by Dr. Lavinder in his "Pellagra a Precis," nor have I ever been able to detect any increase of temperature in connection with the various stages of pellagra. Ulcers and ulcerative processes form no part of pellagra, but when they do occur as complications they are very obstinate and difficult to cure.

Desquamation never takes place in the earlier stages of pellagra, but in cases of long standing the constant scratching causes the cuticle to break up in the form of small, white, thin scales, which are thrown off in considerable numbers. The Indian Doctor makes his diagnosis by drawing his finger nail rapidly across the affected skin, if a white line of scales is left in its wake, the disease is pellagra.

TREATMENT.

The first thing to be done is to put the system in the very best possible condition for the assimilation of food and for the elimination of the disease. This must be done according to special indications in each individual case, but the remedies that have given the best results are, Rau-

wolfia heterophilia in small doses long continued. With the fluid extract of this plant many recent cases can be cured and with it the disease can be very much retarded in all cases.

Arsenite of Potassium alone or in combination with the Rauwolfia is a valuable remedy in many cases. Opium may be used to control the diarrhea, though it is liable to aggravate the nervous symptoms in which case the fluid extract of Coccolobamifera being an astringent tonic is to be preferred in all such cases and is much more reliable.

As special tonics Aristolochia lirrecipes, salvia serotina and hydrastis canadensis are to be preferred.

The severer nervous symptoms are controlled by Salanum torvum and piscidia erythrina. Insomnia finds a remedy in Passiflora ciliata and incarnator.

Edema and heart troubles may be best controlled by the use of Cereus grandiflorus.

The fluid extract of the above remedies are to be preferred.

In individual cases and when indicated good results may be obtained from the use of Sulphide of Calcium, Carbonate of Lithia, Arsenite of Copper, tincture of the Chlorid of Iron, Sulphate of Strychnia, Thuja occidentalis, Echinacea, Tagetes patula, Phytolacca Mexicana and Quinine.

Many other remedies may be used to meet special indications.

As external remedies, few have any effect, but the best results have been obtained from the use of Sulphide of Soda in baths, and ointments of Arsenic, Carbolic Acid, and Tagetes patula will often remove all external signs of the disease.

The hygienic measures to be employed are frequently bathing with water at a temperature most agreeable to the patient. Exercise in the open air with a change of scenery and surroundings and frequent changes of clothing. Leave off the use of corn as an article of diet, and select a healthful and nutritious diet of meats, fresh vegetables, and fruits.

DIFFERENTIAL DIAGNOSIS.

PELLAGRA.

PSEUDO-PELLAGRA.

PELAGIA.

In the beginning of the disease patient complains of a sensation of heat in the mouth, throat and stomach, on expiration.

Sense of taste impaired, there is anorexia and ptyalism.

Tongue broad, flabby and irregularly marked by red blotches.

Bowels constipated followed by diarrhea and sometimes dysentery.

Cuticle assumes a scaly appearance, scales lustrous, thin and not detachable until disease is far advanced—seldom pigmented, and only affects the cuticle.

Pruritus and burning deep-seated and aggravated by scratching. Affected differently by sun and shade.

Normal.

Normal, sometimes present.

Uniformly red.

Diarrhea sometimes present.

Dorsal aspect of all affected parts become erythematous, assumes a dark color and are pigmented progressively, scales thick and detachable—epidermis and part of true skin affected.

Superficial, aggravated by sun's rays.

Normal.

Normal.

Normal.

Normal.

All exposed parts become erythematous, assume a dark color and covered by large thick laminated scales detachable. Skin either edematous or hypertrophied.

Slight, but the burning is intensely aggravated by sun's rays.

Muscular weakness marked and progressive.	The same.	Normal.
Vertigo, occidental headaches, insomnia, neuralgias and cramps.	If present can be traced to alcohol.	Normal.
Occular phenomena generally present.	If present, alcoholic.	Normal.
The gait is usually paralytic, occasionally paralytic spastic and progressively ataxic.	Usual symptoms due to alcohol.	Normal.
Mental phenomena progressive from slightest perturbation to complete dementia.	Alcoholic if any.	Normal.
The Pellagrin avoids company, seeks solitude, is distrustful, melancholic, avoids conversation, prefer the dark, wants no assistance.	Seeks company, avoids solitude, is confiding, is cheerful and talkative. Avoids the dark, wants help.	Normal, Indifferent.
Epileptiform movements rhythmic and often continued to death.	Not rythmic.	No movements.
Pellagra is not limited to season, age, sex nor condition in life.	Limited to alcohol users.	To persons past middle life, who have been much exposed to sun's ray.
Attributable to the use of spoiled corn.	To the use of alcohol.	To exposur's to the sun's rays .
The pellagrin does not fear death, generally conscious at death.	Fears death, and is generally conscious at death.	Indifferent to death.

SYMPTOMATOLOGY OF PELLAGRA

By J. J. WATSON, M. D., Columbia, S. C.

The malady is so insidious in the beginning that it is difficult to state what the premonitory symptoms are, except that in all cases the history of gasstrointestinal disarrangement for a longer or shorter period before the characteristic eruption appears, can always be obtained. There is usually more or less depression, coincident with digestive disorders, and it increases as the disease progresses. The gastrointestinal symptoms consist of a burning sensation in the oesophagus or stomach, which chang-

ing in the color of the buccal mucosa. This membrane assumes a red, denuded appearance, which in some cases is accompanied by salivation and gingivitis. The appetite is never normal; either increased or diminished, the patient drinking large amounts of water when the burning sensation in the stomach appears. Loss of weight occurs in eighty-four per cent. of all cases, being more pronounced in cases with diarrhea. Diarrhea is a most constant feature of the disease, but constipation is sometimes met in the earlier months and in those mildly infected. After these disorders have lasted for months, the characteristic symptoms of the disease appears, namely, erythema

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on the hands and arms not covered by the clothing.

THE SKIN ERUPTION.

This appears first in the early spring months, and while it is one of the most characteristic features of the disease, it is per se, one of the most insignificant.

surface just above the wrist, assuming a somewhat triangular shape, the base being on the radial side of the arm and not more than two inches wide in this locality. It does not usually exhibit a tendency to extend to the flexor surface. After a time the skin dequamates



FIG. I.

It is usually an index to the severity of the infection. The eruption commences as a severe sunburn on the back of the hands and the extensor surface of the arms to the height that the sleeves reach, usually extending around to the flexor

in fine scales if the inflammation has been mild; if severe, large flakes will be exfoliated leaving denuded areas. As the redness fades, the skin assumes a characteristic light liver or chocolate color, which if once seen cannot be mis-

taken or confounded with any other skin disease. In some severe cases, the palmar surface of the hand is also affected, and I have seen the skin desquamate in large flakes, leaving the inside of the hand soft and velvety. This eruption commences in February or March and continues until June, when it gradually fades, disappearing in July, or August. In some localities there is a slight recrudescence in October, but usually the skin remains healthy until the following spring, when the eruption reappears and follows the same course as it did the previous year, except that it is more apt to be more severe. As a result of the repeated inflammatory attacks, the skin becomes pigmented and rough, the hands of a person twenty-five years of age, resembling those of a person seventy-five years old. Portions of the body protected by clothing are not subject to this erythema except the skin over the olecranon, which becomes very rough and pigmented, which Dr. Babcock attributes to pressure. The hands, arms, feet, and legs (of those who go barefooted), forehead, neck, and chest are the sites affected in the order named.

DIGESTIVE DISORDERS.

Diarrhea is a feature of the disease at some time in its course. It usually precedes the eruption by weeks or months. The stools vary in number from three to thirty in twenty-four hours, as many at night as in the day. It is in no way affected by ordinary treatment or diet. I have seen it persist in spite of the most careful feeding and large doses of opium and bismuth, and improve when no treatment was given and diet not restricted. It is therefore, not dependent upon errors in diet for its presence, but is a neurotropic manifestation dependent upon disease of the spinal cord that affects the sympathetic system. The diarrhea is at its maximum of intensity when the skin eruption is at its maximum, and gradually improves after June or July coincident with the improvement of the eruption. With this diarrhea there is metrorrhagia. The condition persists sometimes after the diarrhea has disappeared.

TONGUE.

During the eruption, the tongue assumes a characteristic condition. It be-

comes bright red, first on the tip and edges, and gradually the whole surfaces is almost or quite a cardinal red. It being a cardinal symptom of the disease, I have denominated it the *cardinal tongue*. In addition to the color, it has other striking peculiarities. The epithelium seems to have been exfoliated, and the surface has a smooth, glistening appearance. The tongue is sometimes flabby, large and marked by the teeth. In other cases it is rigid and pointed, and seems smaller than normal. In cases of moderate severity, the whole buccal mucosa is also very red, and there is considerable increase in the salivary flow. In severe cases this salivation is extreme, the saliva constantly pouring out of the corners of the patient's mouth. This and the swollen condition of the gums, and enlargement of the salivary glands, are very apt to be mistaken for mercurial salivation, but just remember that in mercurial salivation there is always quite a disagreeable odor to the breath and while there is an odor to the salivation in pellagra, it is not the same disgusting, foetid odor that is characteristic of mercurial salivation.

THE STOMACH

The burning sensation has already been mentioned. This continues, and in some cases pyrosis is a prominent feature, with or without belching. Vomiting occasionally occurs, but is not a constant feature in the early picture of the disease. These patients often have hallucinations referable to their stomach. One insane patient complained of worms in her stomach, and she said she could feel them moving and eating the walls it.

THE PUPILS.

In eighty per cent. of these patients you will find some abnormality of the pupils. The usual condition is dilation; the mydriasis resembling that produced by atropine. It may be bilateral or unilateral. In the latter the right pupil is more apt to be the one affected. Pupillary contraction is rather rare. Diplopia is not unusual, also photophobia. Lombroso observes that the left lachrymal papilla is sometimes white and the right pink. How can this pupillary manifestation be explained? Is it through the cilio spinal

centre? This centre is located in the cord between the first cervical and the two dorsal nerves, the part of the cord that is nearly always affected. We know that in apical pneumonia, it is not at all unusual to find mydriasis bilateral or unilateral. When unilateral, on the side

But I have not observed it in patients I have seen here. Pains in various portions of the body, however, are often complained of. *Tenderness* at some point along the *spinal column* is almost constant. It is usual in the middorsal region and is easily located. It may be



FIG. 2.

corresponding to the consolidation. This accounted for by the stimulation of the cervical sympathetic for in this disease there is no spinal lesion.

PAIN IN THE BACK.

This is a striking feature of the disease in the Italian patients whom I saw. Some of the patients walking stooped over

more acute on one side than on the other. In the patients I have examined, the right side was the tenderest. The reflexes are exaggerated, the patella reflexes especially being more lively. One may be this is the case, the most exaggerated more exaggerated than the other, when corresponds to the side that has the most

acute spinal tenderness. In very severe cases, rather those in which there are tetanic contractions, ankle clonus may be found. There is usually analgesia or anaesthesia on the backs of the hands and arms, corresponding to the site of the eruption. Later in the disease, when paresis sets in the reflexes are abolished. The pulse is accelerated, the usual rate being ninety to one hundred. The usual temperature is 97 to 100 F. The urine is pale, and the patient complains of a burning sensation during micturition, and sensation of weight on the bladder. The quantity is decreased; two pints is the average specific gravity 1.005 to 1.025, a low specific gravity being the rule. Reaction was in seventy-six per cent. slightly acid; fourteen per cent. neutral, and ten per cent. alkaline. The cases with alkaline urine are very severe. Vertigo is complained of by nearly every patient and forms a very common feature of the disease.

GAIT.

The gait is either simple paralytic or paralytic spastic. The patients walk with their legs far apart, and as paresis sets in the stride is very much decreased, and the patient assumes a peculiar shuffling gait.

PACHIC PHÆOMENA.

Mental depression is as constant as the cholera. The patients seem to have forgotten how to laugh. They are easily provoked to anger, and in many ways indicate lack of mental force. Hallucinations and delusions are sure to occur at some time in the disease, and no two patients will have the same delusion. In Italy ten per cent. of the patients become insane. As yet we cannot form any opinion as to what portion of our patients will become insane but if records are kept it will be a very easy matter to ascertain what proportion is demented.

I have endeavored to give a description of pellagra as it is ordinarily seen dealing only with the symptoms that are most

apt to be present and the ones that should be carefully looked for and inquired into. The disease is very protean in its manifestations. In one case you will find paresis. The symptoms that are frequent in one locality are not observed in another. The disease has so many various manifestations that it would be too tedious to go into a description of the prominent features of each case. The Italians have recognized seven different kinds of pellagra, viz: Pelagra with erythema; pellagra with insanity; pellagra with desire for suicide by water; pellagra with desire to get away from water, pellagra with tendency to walk stooped; pellagra with vertigo; pellagra with desire to eat a great deal. Lombrone designates the following varieties: Cerebral, spinal, ganglia, atrophic, gastric, cutaneous, aphrodisiac and tetanic. Symptoms that are common in one locality are not known in another. For example, in Pavia, contractions and mutism; in Verona, dilation of the pupils, and seldom insanity. In the Austrian provinces patients complain of sensation of salt in their mouths and sever pain in their backs. In some countries it is common to find suicides, in others infrequent. Oscillation of the head is also frequent in some localities, and not so in others.

COMPLICATIONS.

In Italy one of the most frequent is alcoholism. This is not so in the Southern States, for the few men whom I have seen were not alcoholic, and the women here do not drink. Acetonæmia is a frequent complication here and the same condition obtains in Egypt (Sandwith), and as one would expect, the patients are often victims of phthisis, as the diarrhea incident to the disease is conducive to debility and lowered resistance.

There is a condition described by Lombroso that I have never seen, yet I have no doubt that the condition exists in this State. He calls it typhus pellagra. The symptoms are those of ordinary pellagra for several years, and in addition the patients have tetanic convulsions, dysphasia, vomiting, profuse diarrhea with ammoniacal odor, also the same odor with the convulsions, and the patients bear of the perspiration and urine; temperature 104 F., or over. This commences

with the convulsions, and the patient becomes unconscious and have acute delirium. The face is rigid and contracted, and sometimes tremor is noticed around the mouth. Opisthotonus occurs, reflexes are exaggerated, and there is ankle clonus. The least irritation causes convulsions. There is a great increase of urea in the blood; and the case always terminates in death.

3. Babes. Reference from Lavinder. "Pellagra, A Precis", a Report. P. H. & M. H. S. 1907.

4. Giovanna and Gatti. "Richerche sulle proprieà emolitiche e cit pricipitanti del siero di sangue di pellagroso." 1909.

5. D'Ormea. Reference same as (4.).

6. and 8. Antonini and Mirianni. "Contributo allo Studio dello sieroterapia nella Pellagra." 1904.



FIG. 3.

1. Tizzoni, Reference from Wood. Journal A. M. A. 53 No. 4.

2. Lombroso. Reference from Watson. N. Y. Medical Journal, May 8, 1909.

7. Cole. "The Transfusion of Blood as a Therapeutic Agent with Report of Transfusion in a Case of Pellagra." S. Med. Jour. April 1909.

9. Wood and Green. Personal communication from Dr. Tisdale, dated Oct. 14, 1909.

11. Lombroso. Personal communication, dated July 29, 1909.

IS PELLAGRA COMMUNICABLE OR HEREDITARY?

By H. H. GRIFFIN, M. D., Asst. Physician, State Hospital for Insane, Columbia, S. C.

Medical opinion in Italy seems to be unanimously against the theory that pellagra is contagious or infectious. As the question, however, is today one of the most frequent brought to the attention of the general practitioner, and asylum physicians, I thought it worth while to review this particular phase of the pellagra problem, and I do this more particularly because of the action of the health authorities of certain states, that pellagra cases should be isolated.

To begin with, let me call to your attention the summary of the opinion generally entertained in Italy, about pellagra as given by Tanzi, who observes: "In short, pellagra is a disease of man and other vertebrates which in turn is derived from a disease of Indian Corn. The disease of the animals is an intoxication, that of the maize is an infection, the parasites of maize are not infective in animals."

All of us who have studied available literature, and it may be one hundred or more cases, must admit that as yet, we Americans are not in a position to dogmatize about pellagra. We constantly see cases which raise the question of its communicability whereas usually only one case developed in a family, yet instances have previously, and during this conference, been reported in which several members of the same family have developed pellagra. The members of a family are generally placed under exactly similar circumstances, those very ones which probably engender the disease. Furthermore, unquestionably, cases of pellagra develop in asylums in patients who have undoubtedly been associated with pellagrins, so it is pertinent and important not only to ask, but to determine the origin of this pellagrous syndrome. Unfortunately, the very large proportion,

if not all of the cases have eaten products of Indian corn. So that unless we deny in toto the influence of maize as a probable cause of pellagra, we are forced to consider it as a possible factor. A most admirable study of pellagra by Nicholas and Jambon of Lyons, France concludes that pellagra attacks three classes of individuals, namely:

1. THOSE WHO EAT CORN.

The malady here arising from the poor food.

2. THE INSANE.

The pellagrous syndrome in these cases being assigned to psychic depression, (as well as the food ration).

3. THOSE COMING UNDER NEITHER OF THESE GROUPS.

"Sporadic" cases and "pseudo-pellagra," in which alcoholism is the most common contributing factor.

Sandwith calls pellagra non-contagious in his definition of the disease. He further says that he is not converted to the Italian belief that pellagra is hereditary, excepting in the way that alcoholism is now believed to be so. Calderini noticed in 184 families comprising 1319 members inheriting predisposition, that 648 were diseased, 671 healthy, practically equally divided.

Says Niclos and Jambon "The hypothetic role of heredity admitted by Strambio and Calderini was proven false by Roussel and Bouchard, false so far as including the transmission of a germ from parents to their children. But if by heredity one means only a debility of constitution of pellagrous infants, their pathological predisposition, this hypothesis is tenable and is verified by observers in countries where pellagra is frequent. (Here we might draw the parallelism between pellagra and tuberculosis.)

Bouchard admits a morbid tendency, a predisposition and further says this predisposition is of less importance with-

*Read at the National Conference on Pellagra, Columbia, S. C., Nov. 3-4, 1909.

out exposure to the sun and poverty without which it would be incapable of itself of producing pellagra."

Scheube, Diseases of Warm Countries says "Heredity plays a part in the etiology of the disease, as the acquired predisposition of the nervous system to contract pellagra can be transmitted to posterity. Lombroso is even of the opinion that the disease itself is hereditary, especially from the grand parents. (Here, evidently, atavism is a more important factor in producing pellagra than immediate heredity.)

Further studies of etiology have appeared to show heredity predisposition.

The investigation of Probizer, among school children, shows the offspring of parents afflicted with pellagra to be quite generally of poor development, both mental and physical. They are usually enemic, and subject to various nervous and digestive disorders, as headache, dullness, listlessness, dyspepsia, gastralgia, enteralgia, nausea and vomiting."

The mental symptoms manifest themselves especially at puberty (R. A. C. — Wollenberg Ass't Surgeon U. S. P. H. and M. H. Service on Pellagra in Italy.)

The disease is sometimes hereditary, the children of generations of pellagrins are frequently feeble in resistance and of lowered physical vitality and hence fall easy victims to the disease. (Marie.)

From Babes and Sion, I further quote, "Lombroso distinguishes two forms of hereditary pellagra: a somewhat more severe form and a very mild form. This is so far interesting as it deals with the so-called abortive forms, which Rousell will not recognize as pellagra. In such cases Lombroso found bad formation of the skull, extraordinary brachia-cephalia, or dolicho cephalia, retreating forehead, bad setting of the external ears, asymmetry of the face, anomalies of the genital organs, many of them showing, according to Lombroso, a true pellagra sine pellagra, in that, they are merely single symptoms, as burning of the feet, pains in the back, leucorrhea, amenorrhea, vertigo, etc., while desquamation and deliria are wanting.

We cannot, however, unconditionally approve of this view. We have not, ourselves, observed anything similar and it

is difficult to refer such vague symptoms to a disease which is characteristic in its entire symptom-complex. Only in such places where misery, heredity and nourishment with spoiled maize, are shown to exist, can we assume that the injurious poisons cause some of the pellagrous symptoms, whereas we would by no means recognize pellagra cases with such single symptoms in places where pellagra is not found, and maize is not eaten.

"In the pellagra of small children exists, probably always, a congenital or hereditary element to which the poor nourishment and neglect make an essential contribution."

"It was indeed early recognized and especially emphasized by Lombroso that cretins and epileptics are predisposed by nature to pellagra."

PREDISPOSING CAUSES.

Inate weakness, as manifested in cretins and epilectics, and influence inherited from drunkards, pellagrins, syphilitics, and malarial ancestry.

These conditions involve the nervous system so that in the next and succeeding generations this vulnerability is even more marked.

Sanborn says pellagra is not transmitted by means of lactation. He further says, "Until quite recently, the majority of physicians believed in the hereditary transmission of pellagra. Contagion was not admitted but cases of conjugal pellagra have been reported."

Procopiu discusses at length both of my queries. He says; "The non-contagion of pellagra is proven. The contrary opinion has been sustained by Saloman, Titius, Hameau and Casal. The peasantry who live in towns and come in intimate contact with an urban population, have never exhibited the appearance of a single case of pellagra; furthermore, the people who live in the country among pellagrins, but without using corn for nourishment, never become pellagrous themselves. Boniva has tried to inoculate this disease with the blood and with saliva, but without result. All these facts prove that pellagra is not contagious, as would be expected since it is an intoxication."

This non-contagion is an argument

against the microbial theory of pellagra.
HEREDITY.

The heredity of pellagra has been sustained by Odoardi, Calderini, Landouzy, Ballardini, and a number of others.

"Pellagra is not hereditary although children of pellagrins develop it frequently. One almost never sees pellagrous nurslings. The children of pellagrins, if they do not eat corn, never become pellagrous, but the influence of pellagra makes itself felt, from generation to generation becoming, for the race, a real cause for degeneracy."

"Boudin rightly says, 'Pellagrins transmit to their children an evident predisposition to this malady. This predisposition shows itself by their inferior physique which lessens their resistance to the toxin. If many members of a family are attacked, the fact is very natural all being exposed to the same cause'".

Sachi says, "The offsprings of pellagrins are recognized by their uncertain gait, by their yellowish eyes, by their jaundiced complexion, by their fissured lips, by their coarse hair, by their puny, dull and apathetic appearance.

"Lombroso specifies predisposition to microcephaly, the absence of hair, atrophy of the genital organs and the hypertrophy of its abdominal ganglia.

"We have met with microcephalic offspring of pellagrins, but we have not noticed the absence of hair, on the contrary, we have sometimes marked its abundance. We have seen idiots born of pellagrous parents, and also dwarfs and cretins.

"Ordinarily the children of pellagrins are anemic and apathetic. Boudin believes that if the father is pellagrous, the predisposition to pellagra is transmitted to the boys and a pellagrous mother transmits this predisposition to the girls. He supports this affirmation by a table of cases of pellagra which he had met in Italy."

This assertion has not since been confirmed."

The Italian school denies the communicability of pellagra, but admits that the descendants, especially the grand-children of pellagrins, are particularly susceptible to the unknown poison. In the face of long years of observation by in-

numerable observers, such evidence is not lightly to be set aside. What American would presume, after a few years study of a limited number of cases, to set up his opinion against Lombroso, who said that he had studied pellagra all his life? He certainly had studied it for forty years in Lombardy and who shall undertake to estimate the number of cases he saw during this long period. While the French school does not admit the theory of communicability, they seem especially inclined in explaining their cases of "pseudo-pellagra" and "sporadic" pellagra to emphasize the influence of heredity and the role of alcoholism.

The German and Roumanian schools, if we may conclude from Babes and Sion, agree in the main with the Italians; I draw briefly two conclusions, namely:

1. That pellagra is not communicable, basing this conclusion upon the authority of many great minds who have spent a life time in the study of this disease. This seems to be the universal conclusion of those who by virtue of a large experience are in a position to speak and from the one hundred or more cases that have come under the observation of the staff of this institution.

2. That pellagra is hereditary—that is, in the form of a predisposition on a morbid tendency, such a tendency as we now believe to be inherited in tuberculosis, or even in insanity itself.

The hereditary pellagrin is especially vulnerable, not only to pellagra, but as well to physical and mental degeneration including insanity.

Granting this double hereditary weakness as proven to exist in the off-spring, that is the children and especially the grandchildren of pellagrins—and further admitting as proven the prevalence of pellagra in our country among the white and black races to-day, and possibly existing for thirty or forty years past, are not brought face to face with a tangible explanation of the reason for the prevalence of insanity to-day, especially the increase of mental disease that has been steadily going on in the negro race since emancipation? If the pellagrous heredity from the past is a factor in producing insanity to-day, what

have you, the medical members of this conference, the guardians of the public health in many commonwealths, to say is one of the most tangible means of preventing insanity for the future? There can be but one answer, "Establish beyond doubt the real cause of pellagra, and re-

move it, and save humanity from two of its greatest curses; pellagra and its congener, insanity."

It has been well said by Dr. Zeller; when we know what pellagra is, we shall be much nearer understanding what insanity is."

A THEORY OF THE ETIOLOGY OF PELLAGRA AND THE USE OF JUNOD'S BLOOD DERIVATIONS.

By GUSTAVUS WERBER, A. M., M. D., Washington, D. C.

Dear Doctor:—

I write to ask if you will kindly record for me a guess as to the nature of Pellagra and its proper treatment. I feel warranted in asking this since S. C. has more pellagrins than other states, and there will therefore be a better chance to try the remedy; and further that the remedy can do no harm if it does no good.

I presume that Pellagra is the result of poisonous spores finding their way into the blood with the food, and that these spores have unusual power in fortifying themselves when they reach the capillaries, and that the triad of symptoms of the disease is due to *congestion* resulting from the efforts of nature to bring enough of the defensive proteids of the body to bear upon the invaders to destroy them.

Wherever these spores become entrenched in the tissues exposed to the sun light, they are stimulated to more rapid proliferation, and that protecting these patients from the direct rays of the sun would therefore retard the progress of the disease. X-rays, applied to the body in excess, will produce a somewhat similar disordered circulation, which is supposed to result from the poisonous action of the X-rays on the tonic nerves. The reason Pellagra is so rarely cured, is that the remedies heretofore used, have not the power to break up the *congestion*, and I therefore recommend that the more powerful remedy of the partial vacuum be tried.

The method recommended is that introduced by Junod in the year 1833, and of which I give some account in the en-

closed paper read before the Medical Society of the District of Columbia October 13th, ult. If Junod's method is applied effectively in the earlier stages of the disease, I believe it will cure it. In the latter stages of the disease torsion and vibration in addition to the vacuum cup will probably be required to dislodge the entrenched germs in order that the blood in sufficient quantity may reach them. The most satisfactory application of the vacuum principle would be to act on the entire body at once, but the apparatus would be rather expensive for individual cases.

It must be borne in mind in administering the treatments that the capillaries in brunettes do not dilate as readily as in blonds, and that the members of dark skinned races require longer treatments than those of the light skinned races. Breaking up the congestion by Junod's blood derivations I conceive to be a specific for the disease. Auxilliary treatment which would prove of the highest value are baths of super-heated air, the effluve of the Oudin current, and a local faradization with the high tension current,

Gustavus Werber, M. D.
Washington, D. C.

The following is a reprint from the Washington Medical Annuals, Vol VIII, No. 5. The paper was read before the Medical Society of Washington, Oct. 13, 1909, by Gustavus Werber, A. M. M. D., of Washington, D. C. formerly of Newberry, S. C.

JUNOD'S BLOOD DERIVATIONS:

By way of preface I would say that the reason I call your attention to some

ancient history in medicine is that I believe in the near future the physician will come to realize that he already knows that impoverished or vitiated, poisoned blood is the great underlying cause of disease, and that most abnormal conditions of the blood result in its imperfect circulation; and that the cure of disease, therefore, must consist in restoring the blood to its normal condition. The chronic diseases which now prove so unyielding to treatment simply resist our attempts to break the vicious circle, commencing with the imperfect depuration of the blood consequent upon the incomplete elaboration of its constituents, leading to stagnation in the circulation, and leaving the subject poisoned by his own blood. Holding this view, I hope I may be excusable in asking your serious consideration of Junod's claims for his neglected and almost forgotten method of blood derivation, which appears to me by far the most powerful and effective means ever used to correct the evils arising from an unbalanced circulation, and probably also as a means to stimulate the blood-making organs to increased activity, perhaps even to the point of restoring this function to the normal, when it has been seriously impaired.

I incline strongly to this belief from the absolute candor with which Junod tells of his results, and from the public endorsements given his method by more than fifty of his most eminent contemporary physicians, and from the known fact that bleeding a patient will stimulate the blood-making organs to increased activity. And I therefore call your attention to his work with the hope that some will be found to investigate, and give us additional facts, either to confirm or disprove what Junod claimed for his derivations; for to treat with indifference this demonstrated epoch-making discovery by ignoring it does not appear to me justifiable from the point of earnest truth-seeking. True, the technique is somewhat tedious and exacting, but this of itself is not sufficient reason why it should be repudiated by the whole profession.

VICTOR THEODORE JUNOD took his doctor's degree in Paris, in the year 1833, and wrote his graduating thesis on the "Advantages of Haemospasia" (to draw

blood), and submitted the derivators used to accomplish this end. For more than forty years he continued to make a specialty of applying his apparatus, to bleed the patient into his own vessels, and reported many brilliant cures in dangerous maladies. During this time he demonstrated his method in France, Germany, Great Britain, Italy, Austria, Spain and Turkey. In 1839 he was attached to the Paris hospitals in order to perfect his technique. In 1854 he was sent by the French government to the Department of Haut Marne, then decimated by cholera, and received a gold medal for stamping out the epidemic at that place. In 1858 the French government sent him to Algeria to study the effects of his derivations in the epidemics common in that country. Junod's writings on Haemospasia brought him the Montyon prize of the first class in 1836, and the Grand Prize for Medicine and Surgery in 1870. In the year 1843 his method was recommended to all the hospitals in France, by decree of the Minister of the Interior. Later he was awarded the gold medal at the London, Paris and New York exhibitions. Junod's method was highly praised by Magendie in his lectures at the colleges in France, and he was endorsed by other authors in their works, among whom are: Dr. Ch. Londe, Michel Levy, Bourgery, Vidal de Cassis, Nelaton, Phillippe Boyer, Berard and Denonvilliers. His public endorsers include M. Louis Figuier, Nelaton, Velpeau, Ricord, A. Troussseau, J. Voisin, A. Labric, Gerardin, Barth, Honore and many other well known physicians of that period, and also the public officials of France.

Junod's work comprised (1) baths of compressed air, (2) baths of rarefied air, (3) blood derivations, which he called "Haemospasia." This was his favorite operation and principal work, and it is of this only that I shall speak. These derivations were made by applying airtight receivers to large surfaces of the body, and by exhausting the air from their interior, the blood and fluids of the body were forced from the parts still under full atmospheric pressure to those parts subjected to the action of the partial vacuum, or negative pressure. The parts usually subjected to the action of the va-

uum were the arms and the legs; either singly in pairs or all at one time. It was rarely necessary to operate on the four extremities simultaneously, Junod's favorite operation being to apply the pneumatic boot to the leg and thigh of both lower extremities simultaneously. By means of a suitable pump, the air was gradually exhausted and a partial vacuum established usually commencing at minus one-eighth atmosphere and ending at minus 1-4 atmosphere. This diminution of the air pressure causes a dilation of the capillaries of the part to which the derivator is applied, and an enormous flux and engorgement of the fluids of the body were in this way brought about. With the derivator applied to the leg and thigh of both extremities he was, by means of the vacuum thereby produced, enabled to temporarily withdraw more than seven pints of blood from the circulation and imprison it in the limbs (the influence of the partial vacuum retaining it within the area covered by the derivator) from a few minutes to several hours, according to the condition of the patient and the nature of the offending cause; Junod observing that the most prolonged derivations often proved the most effective.

With such an application Junod noted that it usually required about an hour to draw enough blood from the circulation to cause fainting, and this was interpreted as a physical sign that his remedy had been applied "to effect." When the derivation was made simultaneously on both arms and legs, of course a proportionately larger quantity of blood was withdrawn from the general circulation and imprisoned, while from this double derivation it was noted that fainting almost invariably followed in any condition.

Junod claimed for this operation the lowering of the internal and external temperature of the body, causing abundant perspiration; the cure of diseases characterized by inflammation, and that it afforded invariable relief for local congestion; also that by a timely application fever was aborted, and that it quieted even the wild delirium of mania. He taught that his derivations had a rapid sedative effect, which is very useful in

the treatment of many cerebral, thoracic and abdominal affections; also that they were attended by abundant and continuous perspiration, which plays a critical part in the treatment of certain affections. Junod's derivations usually produced sleep, or at least a calm, placid condition. Inflammation is subdued by relieving pressure, and more especially that affecting the nerve centers. Profuse perspiration after hæmospasia, denotes salutary crisis, from influencing the nervous system and that a kind of counter stimulation is established which quiets the action of an excited heart, and disperses inflammatory congestions. This critical sweat kept up in many cases for twenty-four hours or more, and was regarded as a valuable process to cleanse the blood of pathologic products inimical to health. By diminishing the mass of fluid in circulation Junod hastened the absorption of serum in other parts of the body, to overcome this constantly diminishing blood pressure induced in the larger bloodvessels. The renal and intestinal secretions were increased, and in many instances, he says, as much as though diuretics and purgatives had been administered. Junod states that it is certain that in most cases his derivations, employed with persistence and moderation, act successfully by the renewed impulse they give to the circulation in combatting sanguineous stagnation if there is either active or passive congestion, and reestablishing the equilibrium between the contending forces of composition and decomposition if there is a defect of nutrition.

We have here a hint that his derivations stimulate to increased activity the physician's time-honored ally, the *vis medicatrix naturae*, but he gives no additional suggestion on this point.

The indications he lays down for his derivations are as follows: all congestions and inflammatory conditions, hemorrhages (internal and external), neuralgia, nervous affections, morbid growths of any kind (but he lays no claim to favorably influencing cancer, tubercles, or organic degeneration), meningitis, pneumonia, pleurisy, serous effusions following meningitis, pericarditis and peritonitis, or ascites from engorgement of the abdominal viscera, uterine hemorrhages, facial neuralgia and toothache, conges-

tion of the brain, dropsies, obstinate insomnia, delirium tremens, chorea, mania, and, in fact, all nervous affections which are not the result of organic disease.

In his "Theory and Practice of Haemospasia" published in 1875, Junod gives the histories of 293 cases in which his operation is shown to have accomplished wonderful results. In the histories given, mania in several forms was cured, apoplexy causing paralysis of various organs—and he usually restored at once the power of speech and movement—aphasia, complete paraplegia, cerebral congestions with various complications, meningitis, numerous brain affections, many nervous and neuralgic affections, eclampsia, opisthotonus, hysteria in its worst forms epilepsy, convulsions, neuralgias and sciatica were cured. Affections of the eyes and ears of a serious nature were cured by his derivations. Many chest and pulmonary affections, as edema of the glottis, croup, laryngitis, bronchitis, pleurisy and symptoms of pulmonary phthisis were alike cured. In pneumonia his results were brilliant, congestive affections of the heart yielded readily, cardiac asthma, angina pectoris and peritonitis were cured.

Under the relaxing influence of haemospasia intestinal occlusion gave way, and strangulated irreducible hernias and dislocation of bones were readily reduced. In uterine affections his results were no less brilliant than in brain affections, metrorrhagia, dysmenorrhea, amenorrhea, were readily cured, and usually with one or two derivations. Of the urinary organs, nephritis, acute and chronic cystitis were cured. Under general maladies, he reports cures of cholera in all stages, typhoid fever with numerous complications, intermittent fever, rheumatism and gout. Surgical cases dependent on congestion were cured or materially benefitted. In his records Junod gives the names of many physicians having a knowledge of the facts, and taking into account the well-authenticated cures of such an array of disease, I think you will agree with me that the work of this painstaking, earnest, original investigator is well entitled to practical recognition at the hands of our profession.

One phase of this operation appears

to me a simple question in hydraulics, in which the stagnant pools of the body are drained and the poisons causing disease are flushed out of infected areas by the flowing tide of new blood. And that Junod's derivations *would* cure many disease seems quite likely, from the fact that it appears to meet the requirements of the last three schools—the Humoral teaching that the cause of disease resides in the blood, and the Cellular that it resides in the tissues, and of the Modern school, which teaches that certain diseases are caused by noxious germs. Modern pathologists teach the blood carries anti-bodies and antitoxins which disable germs preparatory to their final annihilation by the leucocytes. Now when the disease producing germs become entrenched in the tissues, the battle is made short and decisive, in proportion to the ability of the circulation to bring upon the battle field the required defensive proteids of the body. Drain the fluids from the tissues and you remove the soluble poisons, and perhaps some of those not in solution, by mechanical displacement, causing leucocytosis. Perhaps wandering leucocytes are by this means returned quickly to the circulation. I fancy when Junod reduces the pulse to a thread he sends a signal of distress to every cell of the body outside the area of the vacuum to hurry on its quota of fluid to sustain the failing circulation, and, the imprisoned blood being mainly arterial, that a powerful *aspiration*, in effect, ensues to draw fluids to the heart and large arteries. When the derivators are removed *reaction* sets in, and the new blood flowing into the tissues carries fresh supplies of the defensive proteids of the body to check invasions, and food to restore health and strength.

When Junod removed enough blood from the brain to suspend the action of the conscious mind I suppose he necessarily lessened the power of the brain to supply nerve impulse to the body through the spinal cord. Just here Junod's investigations stopped and I think it may prove profitable for our investigations to continue the study to ascertain just what happens when the conscious mind is held in abeyance.

The work of Junod has stimulated the

development of the cupping glass described by Celsus, which is used for making derivations on a smaller scale, and in many cases with the sole object of producing hyperæmia. The principle laid down by Junod, that the most prolonged derivations are generally the most effective, I conceive to be a correct one, and the vacuum cups which I show you were designed to accomplish this result. Hence their much larger cubic capacity than cups formerly used for this purpose. These cups are made in five sizes with a capacity of about 17, 40, 84, 97 and 132 cubic inches. Cups of smaller capacity are now supplied by the instrument makers which *redden the skin beautifully*,

UTERINE CANCER

Cancer of the uterus, that disease which accuses the entire medical profession of want of knowledge, is as great a problem as ever. While medical science is aiming to find the cause, the disease itself should be combatted as soon as the first symptoms present themselves. This is a truism that should be reiterated every day. Samuels, in the *Medical Fortnightly* (August 10), in a paper which, though not brilliant, is readable again takes occasion to force home the necessity of early diagnosis.

"We may conclude by saying that the most essential factor for successful treatment of cancer of the uterus is an early diagnosis. This may be accomplished best by the medical practitioners making careful and painstaking examinations of their patients. In doubtful cases a microscopic examination of the tissues should be made. They should instruct their patients as to the manner in which the menopause occurs, viz, suddenly, by gradual lengthening of the intervals, or by gradual diminution in the amount, and they should be cautioned to seek advice without delay if irregularities from the foregoing occur."—From *Lancet Clinic*.

but the degree of vacuum cannot be regulated with the nicety required to fill the deeper vessels with blood. These cups have been used with encouraging results in the treatment of locomotor ataxia, neurasthenia, congestion of the brain, indolent ulcers and incipient gangrene, and in general are beneficial wherever local hyperæmia or a derivative action in a circumscribed area is desirable.

The general indications for their use is the gradual reduction of the vacuum ending at from minus 1-3 to minus 1-2 atmosphere, and, if retained in place from fifteen to twenty minutes, the application generally suffices to fill the deeper vessels.

TRAUMATIC UNCOMPLICATED

—Dr. Schulz *Beit. Klin. Chir.*, Bd. 60) regards the prognosis of these cases as rather unfavorable, even if the condition is recognized early and properly treated. The chief cause of this and contraction of the capsule of the joint and of the surrounding tissues. To prevent ankylosis or habitual luxation massage should be employed as early as the first few days in connection with cautious movements, which are gradually increased in extent.

Aspirin can replace morphine for many of the post-operative pains, particularly at night.—*American Journal of Surgery*.

never earned general acceptance, and the phloridzin and indigo-carmine tests have not an absolute value.—*American Journal of Surgery*.

One of the simple and best differential signs between renal and vesical hematuria is obtained by standing the urine in a conical glass for twenty-four hours. In hematuria of vesical origin, all the blood has settled to the bottom by this time; in renal hematuria, the whole fluid remains smoky.—*American Journal of Surgery*.

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DR. L. ROSA H. GANTT, Spartanburg, Secretary and Treasurer.

THE INSURANCE FEE QUESTION.

By W. J. BURDELL, M. D., Sec. Kershaw County Society.

Apropos to the letter of Dr. Cheyne in the September issue of the Journal, I beg to suggest that each county secretary appoint a meeting of his society between now and the April meeting of the House of Delegates, at which meeting there shall be a full discussion of this insurance fee matter. Let each society study carefully the different features of the various classes of insurance examinations, or inspections as the case may be and then come to some decision in the matter. When this discussion is over, let a brief summary be given to the Journal by each secretary. In this way a fairly full discussion of the matter can be run through the Journal and at the April meeting the matter can be discussed more intelligently and briefly than it has been heretofore and perhaps a more satisfactory ruling made.

I know some good men, men who are thoroughly ethical, who see nothing more in some of the industrial examinations than a simple inspection of the applicant, and I know that some of these appli-

cants are men who are financially unable to pay the premiums of either the fraternal or the old line companies. They do not get as much in the face value of the policy, but they do get as Dr. Cheyne says, "decent burial" out of it. I also know men, who are good, true, and ethical men who think that we physicians could very well examine an applicant for, let us say for example, Woodmen insurance, for three dollars. In the case of an applicant for Woodmen insurance the applicant pays one dollar per month premium on a thousand dollar policy, whereas the same applicant would pay thirty six dollars per annum on a thousand dollar policy in an old line company. In the case of the Woodmen insurance, the applicant pays the fee and in the old line company, a rich corporation pays the fee.

Personally, I prefer the straight five dollar fee, where urine analysis is required but I readily see that the other fellow has some basis for his belief.

At the annual election in each county, let instructed delegates be sent to the House of Delegates.

COUNTY SOCIETY REPORTS.

FOURTH DISTRICT.

E. W. Carpenter, M. D., Secretary.

The Fourth District Medical Association convened at Easley, S. C., Nov. 15th, 1909, and was called to order by the president, F. A. Hines, at 1:30 p. m.

Dr. Fred Williams, of the State Board

of Health, discussed at length and in a scientific way the attitude of the Board of Health and the relation of every physician to the greatest of our social problems. He was followed by Rev. D. W. Richardson, who has much personal magnetism as a speaker. He had given much thought to this problem while pur-

suing his studies in Europe and presented it from the view point of a scientific layman and a desiple of the Master. If no other paper had been prepared for the session, the meeting would have been a marked success, for this subject is a live one and the messengers held the attention of each member with their clear incisive plea for ignorant men and women and innocent babes.

Doctors J. R. Gilliland, H. R. Black, Geo. Thompson, C. M. Walker, C. F. Ross and J. C. Harris, read interesting papers. Doctor J. W. Jersey reported an interesting case of disease of Cornea in a patient with hookworm.

The next place of meeting will be in Greenville, S. C., on the third Monday in November, 1910.

Dr. W. A. Tripp, was elected president.

Dr. C. B. Earle, was elected vice president.

Dr. E. W. Carpenter, was elected secretary and treasurer.

SPARTANBURG COUNTY.

L. Rosa H. Gantt, M. D. Secretary.

At the October meeting of the Spartanburg County Medical Society, the attendance was a little below the average, but this was nevertheless a very good meeting.

A very interesting paper on the Treatment of Pneumonia was read by Mr. S. F. Blakely and discussed by Dr. F. L. Potts.

Dr. Leland Anderson read a very clear and concise report of a case of Chronic Diarrhoea of nervous origin, Dr. Edwards leader of the discussion, complimented the author on the fact that he used no proprietary remedies in the management of his case.

Dr. D. Lesesne Smith announced that he, with several of the younger members of the profession had opened a clinic and invited the Society to visit it and send their charity cases there.

It was decided to hold a pellagra meeting in November and write Dr. Babcock and Lavinder to be present and read papers.

The opinion of the society on the subject of fraternal and industrial Insurance

could not be obtained as the members would not discuss it.

TUBERCULOSIS MEETING.

At the first public meeting of the Spartanburg County Anti-Tuberculosis league held in Spartanburg on October 16, at the First Baptist church, Dr. John L. Dawson, of Charleston delivered a lecture on Tuberculosis to over 600 people. This was a record breaking Saturday night audience for it is difficult to get people together for anything but amusement on this night. A very attractive musical programme had also been arranged and three artists from Converse College rendered beautiful solos. For three quarters of an hour Dr. Dawson held the attention of the entire audience and even though there were many school children present all seemed very keenly interested in this instructive address which was couched in language such as a child could understand and an adult appreciated. Short talks were made by Dr. Snyder, President of Wofford College, H. E. Ravenel, Esq., and Rev. L. M. Proper. Before the close of the meeting slips of paper were passed around asking all of those who cared to join the League to sign their names. When these were counted it was found that 68 new members were added, there being on the list the names of many prominent business men. After the meeting numbers went up to meet Dr. Dawson and thank him for the instruction he had given. So enthusiastic were some that they have requested the officers of the League to try and get Dr. Dawson to come back and deliver another lecture. This meeting had been extensively advertised by pastors and in the newspapers, which very kindly made mention of the event every day for a week.

"The "lymphangeoplasty" operation of Simpson Handley is simple and may prove a great boon to patients suffering from otherwise incurable edemas of the extremities (elephantiasis, compression of the axillary vein by cancer of the axillary nodes, obliterating thrombosis of the iliac vein, etc.)—*American Journal of Surgery.*

JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION.

FLORENCE, S. C.

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Dr. F. M. Dwight, Wedgefield, S. C.

Dr. J. T. Taylor, Adams Run, S. C.

Dr. F. H. McLeod, Florence, S. C. Editor.

THE PELLARGRA CONFERENCE.

The National Conference for the study of Pellagra, held in Columbia, November the third and fourth, under the auspices of the State Board of health, was a success.

An attendance of nearly four hundred physicians showed the interest that Pellagra has attracted, and though most of those present were from the South, quite a number were from the North, and there were six papers from foreign countries.

About forty papers were read, dealing with the disease in all of its phases. We give the entire *Journal* to the subject of Pellagra, and wish we could give space to many more of the valuable papers, but the full proceedings will be published by the State Board of Health, and will make a most excellent and valuable treatise of the disease.

The literature of Pellagra, in the English language, is not full; and the proceedings of the meeting, when published, will make a notable addition to the literature on the subject.

It was not expected that anything new as to the etiology and treatment would be brought out at this conference, but certainly the greatest good must come from the meeting.

The organization of the National Association for the study of Pellagra was

the result of the meeting, and from now on there will be an organized investigation of the disease, and much is to be expected from this organization.

The officers of the new Association are President, Dr. J. W. Babcock of Columbia, S. C.

First vice President, Dr. White, Washington D. C.

Second vice President, Dr. C. Fred Williams, Columbia, S. C.

Secretary, Dr. G. A. Zeller, Peoria, Illinois.

The Association will hold its next meeting in Peoria, Ill.

A resolution passed indicates the opinion of those who have had experience with Pellagra, as follows:

"Resolved, that while sound corn is in no way connected with Pellagra, the evidence of the relation between spoiled corn and Pellagra seems so apparent that we recommend that such measures as are necessary to prevent its use as food be instituted, pending further investigation of the subject."

Honor and praise to the zeal and energy of the State Board of Health, its efficient secretary, Dr. Williams, and to Dr. Babcock, the father of the Pellagra movement in this country, for the success of this meeting.

It was most fitting that the conference should be held in Columbia following the meeting of a year ago.

The conference was delightfully entertained at a smoker by the Columbia doctors at Ridgewood Club, and every courtesy was shown the visiting physicians, and their comfort looked after in every possible way.

THE AESCULAPIAN.

We have received the first copy of **THE AESCULAPIAN**, a monthly magazine published by the students of the Medical College, of South Carolina.

THE TREATMENT OF SCABIES OR COMMON ITCH.

Bunch states in the Lancet of April 3, 1909, that when he sees a general eruption, scratched or pustular, and when the patient complains of itching, he always looks for burrows, whoever the patient may be. If he can demonstrate acarus there can be no question of the diagnosis and he does not consider it within his province to inquire from whom the acarus came. It is a fact however, that one variety of mange in the dog is due to an acarus which may infect man, and persons who have much to do with dogs may become infected in this way. The face is always affected in these cases, whereas ordinary scabies does not cause any lesions of the face in adults.

The treatment of scabies aims essentially at opening up the burrows, destroying the acari, and allaying the itching. The best way is to make the patient soak in a hot bath for a quarter of an hour, then scrub himself with soft soap, using a nail-brush for the hands and feet. After washing off the soap the sulphur ointment of the Pharmacopœia is rubbed all over the skin except the face, and left on for three days. The patient then has a starch bath to allay the irritation and applies boric ointment to any patches of dermatitis which may be present. It is important not to use any sulphur after the third day, otherwise an unpleasant degree of eczema or artificial

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The subscription price is fifteen cents per month; seventy five cents a year.

dermatitis may be set up which will cause great itching. In place of sulphur B-naphthol in 20 per cent ointment may be rubbed in after the bath and again on the three following days. It has the advantage that it is not so efficacious. The same may be said of balsam of Peru, and the writer prefers to order sulphur. In any case the cloths must be disinfected and the patient kept under observation for ten days to make to sure that all ova have been destroyed.—*Therapeutic Gazette*.

REPRINTS.

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When a pyloric carcinoma is palpable, preoperatively, radical removal is usually impossible—H. N.—*American Journal of Surgery*.

The examination of the eye ground's will often be the first clue to atu mor of the brain.—N. H.—*American Journal of Surgery*.

Osteosarcom a about a joint may closely simulate a rapidly-growing exostosis deformans.—H. N.—*American Journal of Surgery*.

Abdominal pains associated with a small mass in the umbilical region, or at the brim of the pelvis, should arouse the suspicion of a possible "fused," "horse-shoe," or "pelvic" kidney.—*American Journal of Surgery*.

The examination of the urine secured from each side by ureter catheterization is the most satisfactory means of determining the condition and functional activity of each kidney. Cryoscopy

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Next Annual Meeting at Laurens, S. C., April 20, 1910.

House of Delegates Convenes April 19, at 2 p. m.

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District No. 2: Orangeburg, Bamberg, Lexington and Calhoun. Councilor, Dr. W. P. Timmerman, 1910.

District No. 3:—Saluda, Newberry, Greenwood, Laurens and Abbeville. Councilor, Dr. O. B. Mayer, Newberry (Chairman of Board), 1911.

District No. 4: Anderson, Oconee, Pickens, Greenville, Spartanburg, and Union. Councilor, Dr. J. F. Williams, Roebuck, 1912.

District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor; Dr. W. B. Cox, Chester, 1910.

District No. 6: Chesterfield, Darlington, Florence, Marlboro, Marion, and Horry. Councilor, Dr. William Egleston, Harstville, 1911.

District No. 7: Richland, Sumter, Clarendon, Williatmsburg, Georgetown and Lee. Councilor, Dr. F. M. Dwight, Wedgefield, 1910.

District No. 8: Barnwell, Aiken, Edgefield, and Hampton. Councilor, Dr. T. G. Croft, Aiken, 1912.

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TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay:

County	Society	President	Secretary	Time of Meeting
Abbeville	J. A. Neuffer	....C. C. Gambrell, Abbeville...	
Anderson	J. L. Gray	....J. R. Young, Anderson	....Semi-Mo., 1st and 3rd Monday
Aiken	C. A. Teague	....T. A. Quattlebaum, Gr't'ville.	Monthly, 1st Monday
Bamberg	J. J. Cleckley, Bamberg....	
Barnwell	No Society.	
Beaufort	H. M. Stuart	....M. B. Cope, Port Royal.....	
Charleston	John L. Dawson	A. J. Jersey, Charleston....	Semi-Mo 1st and 15th
Cherokee	William Anderson	J. G. Pittman, Gaffney.....	
Chester	J. G. Johnston	....W. B. Cox, Chester.....	Monthly, 1st Monday.
Clarendon	W. M. Brockinton	....C. B. Geiger, Manning.....	Quarterly
Chesterfield	T. E. Lucas	....J. W. McCanless, Chesterfield.	
Colleton	Ben Willis	....T. G. Kershaw, Walterboro..	Monthly.
Darlington	J. F. Watson	....J. C. Lawson, Darlington....	
Dorchester	F. Julian Carroll	E. W. Simons, Summerville.	Monthly, 1st Monday.
Edgefield	S. A. Morrell	....J. G. Edwards, Edgefield....	
Fairfield	R. B. Hanahan	....Samuel L'ndsay, Winnsboro.	Quarterly
Florence	F. H. McLeod	....J. H. Peele, Cartersville....	
Georgetown	W. M. Gaillard	....J. LaB. Ward, Georgetown..	Monthly 1st Friday.
Greenville	L. L. Richardson	W. M. Burnett, Greenville..	Monthly, 1st Monday
Greenwood	R. B. Epting	....J. B. Hughey, Greenwood....	Monthly, 1st
Hampton	T. B. Whatley	....C. A. Rush, Hampton.....	Monthly, 3rd Wednesday
Horry	A. D. Lewis	....J. S. Dusenbury, Conway...	Monthly, 2nd Monday
Kershaw	S. C. Zemp	....W. J. Burdell, Lugoff.....	
Laurens	W. D. Ferguson	....J. H. Teague, Laurens.....	Monthly, 4th Monday.
Lee	B. L. Harris	....R.O.McCutcheon, Bishopville.	Monthly, 1st Tuesday.
Lexington	W. L. Kneece	....J. J. Wingard, Lexington....	Quarterly.
Marion	A. McIntyre	....Z. Smith Marion	
Marlboro	W. E. Eaddy	....Chas. R. May, Bennettsville.	
Newberry	J. M. Kibler	....J. J. Dominick, Prosperity..	
Oconee	J. W. Wickliffe	....E. A. Hines, Seneca.....	
Orangeburg	W. L. Pou	....D. D. Salley, Orangeburg....	Monthly, 3rd Tuesday.
Pickens	J. L. Bolt	....R. J. Gilliland, Easley.....	Monthly, 1st Wednesday.
Richland	L. A. Griffith	....Mary R. Baker, Columbia...	Every 2nd Monday night.
Saluda	D. B. Frontis	....J. D. Waters, Coleman.....	
Spartanburg	S. T. D Lancaster	....E. R. Wilson, Sumter.....	Monthly, 1st Thursday.
Sumter	Archie China	....R. R. Berry, Union.....	Weekly
Union	J. T. Jeter	....L. Rosa H. Gantt, Sp'tnb'g.	Monthly, last Friday.
Williamsburg	W. H. WoodsE. T. Kelley, Kingstree.....	Monthly
York	M. G. WalkerJohn I. Barren, Yorkville...	Bi-Monthly

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The Journal OF THE South Carolina Medical Association

Vol. V.

Florence, S. C., December, 1909.

Number 12

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The Journal is published monthly under the auspices of the South Carolina Medical Association. Original Articles are solicited. Members who do not receive their copies will please notify the editor. Correspondents and Secretaries of County Societies are urgently requested to send reports of their meetings, and items of news that may be of interest to the profession, to the Editor. All articles should be typewritten. Illustrations sent with articles will be printed. For prices of reprints see advertising pages.

All matters must be in the hands of the editor by the 5th of each month.

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Journal S. C. Med. Assn., Florence, S. C.

ORIGINAL ARTICLES.

CHOLECYSTITIS

By CLYDE F. ROSS, M. D., Anderson, S. C.

The surgical profession having about conquered the acute intra abdominal diseases including appendicitis, intestinal obstruction, and diseases of the female pelvic organs has very deservedly turned its attention to the correction of the chronic digestive disorders, the diseases of the upper abdomen. Never before in the history of medicine was there so much written or said upon the diseases of this region as there is today.

One by one the lesions of the stomach duodenum and biliary tract have fallen before the powerful onslaught of the surgeons knife during exploratory laparoto-

my and now it looks as if the pancreas has about succumbed to the great work done by Opie, Fitz, Robson and others. The spleen no doubt will be the next victim with such men on its trail as Kelly, Ochsner and the Mayos.

During my recent visit to the Northern clinics I was so forcibly struck with the frequent errors in diagnosis of cholelithiasis wherin cholicystitis was found that I have decided to write upon the subject of "cholecystitis" so that in making our laparotomies we will not be grievously surprised when we do not pluck our trophy, the gall stone. When we realize that from 7-10 per cent of the people who die have gall stones and that only the mild types of or (chronic) chol-

*Read at the meeting of the 4th District, Easley, S. C., Nov. 15, 1909.

ycystitis probably not a majority result in lithogenous formation we can readily account for the many cases of cholecystitis which are diagnosed, "dyspepsia," indigestion," or "billiousness." In fact many surgeons, (and I don't believe that they are extremist) go so far as to claim that there is no such thing as chronic indigestion or dyspepsia primarily but that they are dependent upon some lesion of the stomach, duodenum, appendix or bile tract and that they all can be cured by the proper surgical means.

It is remarkable how little attention is paid cholecystitis by the present day text book. Cholelithiasis seems to have overshadowed entirely its progenitor and I believe the frequency with which gall bladder inflammation without gall stones occurs warrants a more thorough consideration of the subject.

ETIOLOGY.

The exciting cause of Cholecystitis lies in the bacteria which reach the gall through the bile ducts and through the portal circulation. Those most frequently found are the typhoid bacillus and the colon bacillus.

But in the majority of the cases so long as the contents of the gall bladder have a free exit the germ is harmless, but let the natural drainage become obstructed and we have the predisposing cause of cholecystitis, the germs not being flushed out become more active. Partial or total occlusions of the cystic duct is caused by inflammation extending up from the duodenum through the common duct in which the mucous membrane swells and produces the obstruction. Adhesions between the gall bladder and the transverse colon, stomach, or duodenum will produce a kinking of the duct by dragging on the gall bladder. No doubt the tight lacing of women forcing the gall bladder down out of its normal position is a causative factor in the production of cholecystitis and accounts in a measure for the more frequency of the disease in women.

Sometimes it is the case that foreign bodies such as ova of round worms will aid the bacteria in causing cholecystitis and frequently gall stones aggravate the cholecystitis by their irritating presence.

Traumatism also plays a part in its etiology.

In addition to typhoid, cholecystitis also occurs after cholera, dysentery and pyemia and Ochsner has seen it so often after appendicitis, 35 per cent that he concludes that they are either produced by the same cause, or that cholecystitis is secondary to the appendiceal infection. Between 30 and 40 years of age seems to be a very propitious time for the gall bladder disease, occurring somewhat earlier in the female. Sedentary habits, over eating and over drinking cause a tendency in this direction, its presence being detected about three years sooner in the leisure classes.

SYMPTOMS:

The symptoms of chronic cholecystitis may be spoken of by some as the prodromal stage of cholelithiasis for during this stage the gall stones are being formed, but, as I believe they are due more to the inflammation of the gall bladder than to the presence of the stones. I prefer to speak of them as symptoms of cholecystitis. These symptoms may extend over quite a period before the gall stones are formed. They are not always referred to the gall bladder but usually to the stomach in the form of "indigestion" and consist in a feeling of fullness, tightness or constriction in the stomach which is often relieved by belching of gas or by vomiting (Ochsner has found this to be so true that he uses gastric lavage instead of morphine in all attacks of pain or discomfort arising from gall bladder disease and finds it just as efficacious. Very frequently there is a dull pain in the epigastrium radiating to the right hypochondrium, then through to the right scapula, or there is just a dull aching or burning pain in the right hypochondrium. Sometimes instead of this dull pain there is a severe pain in the epigastrium followed by nausea and vomiting after which we frequently see a subsidence of the symptoms for a variable period.

In addition to these gastric symptoms there are anorexia, constipation, sallowness of the skin, and scanty urine saturated with uric acid. There is a feeling of heaviness about the head and

sometimes migraine which grows worse as the disease advances.

In an uncomplicated case of cholecystitis jaundice is never present, (possibly one exception, when gall bladder enlarges and presses on the common or hepatic duct). Hypersensitiveness about the gall bladder is nearly always present unless the disease is far advanced and the gall bladder contracted. It can be detected frequently by asking the patient to take a deep breath when the gall bladder descends, strikes the abdominal contents and causes a sharp stabbing pain.

If it is not noted in this way it can be readily elicited by placing the fingers deep beneath the margin of the ribs and having the patient inspire deeply when he will suddenly stop as the gall bladder strikes the finger tips.

When the obstruction to the cystic duct is so great as to entirely occlude the lumen such as could be caused by adhesions and the passage of lumps of mucous there exist a condition simulating gall stone colic and one that I believe often leads us to an error in the diagnosis of the cholelithiasis. There is an acute colicky pain under the right costal arch radiating up beneath the right shoulder blade. This pain does not retain its colicky character long but assumes a dull aspect or sense of discomfort and there is no jaundice. The gall bladder becomes distended and if the infection is mild and obstruction chronic we have a hydrops of the gall bladder but if infection is severe there results an acute cholecystitis, empyema of the gall bladder, or even gangrene. Acute catarrhal cholecystitis is often engrafted upon the chronic (or vice-versa) and is due to a more severe infection, irritating foreign bodies as gall stones, or a more complete occlusion of the duct. Usually there is an acute severe pain in the gall bladder radiating to the back or abdomen. The gall bladder is enlarged and very tender. There is a right sided muscular rigidity confined more to the right costal arch often simulating appendicitis, a slight fever is present, its severity depending upon the virulence of the infection.

DIAGNOSIS:

So long as the gall stones are small and confined to the gall bladder or cystic duct it is almost impossible to distinguish between cholecystitis and cholethiasis but when the stones are of and size and enter the common duct a diagnosis can more readily be made. The colic is more persistent, pain more excruciating and if jaundice intermittent in intensity be present considerable light is thrown on the subject.

Cholecystitis is not very often confounded with appendicitis when the location and the radiation of the pain and the seat of the tenderness are considered, such is also the case with renal colic.

When diagnosing between cholecystitis and gastric or duodenal diseases, the tendency of the pain to radiate or be in the right hypochondriac and right scapular regions, the hypersensitiveness of the gall bladder with probably some enlargement of same will aid us. Frequently a diagnosis is made only upon an exploratory incision but suffice it to say that when there is a dyspepsia or indigestion persisting for some time in spite of the ordinary medical treatment an exploratory is demanded when if you don't find a cholecystitis probably with adhesions, you will find a gastric or duodenal ulcer or some of their sequelae.

Upon opening the gall bladder there will pour forth a mixture of bile and mucus which is ropy, thick black and sometimes contains small particles of sand, the beginning gall stones. You readily see that the stones are not large enough if any are present to cause the colicky pains and you wonder why the attack simulating gall stone colic, but the passage of that mucus and the inflammation are just as capable of causing the symptoms as the gall stones themselves.

COMPLICATION AND SEQUELAE

The complications and sequences are all the result of the inflammatory process. Adhesions to the pylorus or duodenum due to peri-cholecystitis result in chronic digestive disturbances or "adhesion dyspepsia" by interfering with the passage of food thro' the pylorus causing dili-

tation of the stomach. As has been said before only the mild or attenuated infections result in the formation of gall stones and with them their many serious sequences. The more severe infections cause a destruction of the mucous-membrane and result in acute cholecystitis, when if there is a total occlusion of the duct from any cause, as swelling of the mucous membrane, there follows empyema, ulceration, perforation, peritoneal abscess, general peritonitis, etc.

Adhesive bands resulting from pericholecystitis may cause stricture of the intestinal canal or acute intestinal obstruction which may be produced also by a localized peritonitis causing paralysis of the bowel.

TREATMENT:

What can we offer a patient suffering with symptoms of cholecystitis other than pure surgical attention? It is a known fact that the various drugs including succinate of soda, methylene blue, glycocholates, urotropin etc have completely failed to effect a permanent cure. It looks very reasonable to suppose that no drug could produce a beneficial change in chronic cholecystitis and quoting Tyson "Richardson says acut cholecystitis demands surgical interference more strongly than appendicitis."

We can give our patients the ordinary dyspeptic treatment and they will be chronic dyspeptics all their lives or worse still watch them go on to adhesive formation, the production of gall stones, severe biliary colic with jaundice, our patient filled with poisonous bile, his strength being gradually snuffed away, the golden opportunity for operation passing, chronic pancreatitis, suppurating cholangitis and very likely corcino-ma of the bile tract. But we do not want to see this clinical picture before operating.

The Mayos tell us that just as we are prompted to operate in the early stages of appendicitis just so ought we to operate in cholecystitis and cholelithiasis be-

fore complications set in which make our mortality. If the operation is performed previous to complication and before our patient has wasted from severe gall stone attacks etc the mortality is practically "nil" (Less than one per cent) but it increases greatly with delay and complications.

Very frequently upon exploratory you will find a gall bladder comparatively normal and upon doing a cholecystotomy the bile will appear normal and you will wish that you had not opened. If the wound in the gall bladder is closed there will be no relief but on the other hand if you drain the result will invariably be a cure. This is due to the fact we cannot always tell the amount of the pathological condition existing without a microscopical examination. I don't believe in doing nothing to a patient upon whom an exploratory has been performed for cholecystitis or cholelithiasis even if the gall bladder does appear normal, but I do believe that if you have the symptoms present and can't account for them otherwise in the stomach, duodenum, appendix or pancreas, that if a chole-cystostomy is performed or as Deaver does in addition an append-ectomy your patient will invariably be cured.

It is not considered wise to operate during an attack of billiary colic. In such a case gastric lavage, only rectal nourishment, nothing what so ever by the mouth, and hot fomentations will usually suffice.

Morphine can be given but if the stomach is completely emptied and kept empty it will not be necessary.

In conclusion I would suggest:

1. That we seek the cause of biliousness, indigestion etc which are symptoms of diseases only and not diseases "per se."

2. That exploratories be made or insisted upon in chronic digestive disorders, as our only means of a cure when in a vast majority of the cases we will find the gall tract at fault.

3. That we operate more frequently for "cholecystitis" instead of "cholelithiasis."

AN EXPEDITIOUS METHOD FOR SUBMUCOUS RESECTION OF THE TRIANGULAR CARTILLAGE OF THE NOSE WITH ILLUSTRATIVE CASE.

By W. PEYRE PORCHER, M. D., Charleston, S. C.

In no other field of surgery, perhaps, have so many operations been devised as those for the removal and correction of displacements of the nasal septum. The number of instruments and paraphernalia have also been proportionately numerous. For example, between 20 and 30 instruments have been recommended for the performance of one of these operations.

To prolong general anaesthesia while operating upon the nose is manifestly difficult and as this is generally necessary while operating on children any operation which will simplify the work, do away with unnecessary paraphernalia and increase the rapidity with which the results can be obtained, should be welcomed.

Of course no one operation will be equally adaptable to all cases but I will report the following case because the results were so extremely satisfactory and the operation was so rapidly and easily performed.

The patient was a physician aged 59 whose hearing had gradually become worse until it was contact for the watch in the left ear and about ten inches in the right. The triangular cartilage was found to be dislocated on the right side causing considerable flattening of the end of the nose and almost complete occlusion of that nostril. The patency of the tubes on both sides was very poor. In consequence of his deafness his enunciation had also become seriously affected so that he could neither speak distinctly nor hear when spoken to and his breathing while asleep was very stertorous. After dissecting up the mucous membrane over the dislocated portion of cartilage I determined to use the electric

trepchine instead of the knife or forceps because the cartilage proved to be very tough and situated some what further back in the nose than usual. With a rather long Curtis trephine two large cones of cartilage were drilled away the trephine passing through the mucous membrane in the rear. When we remember how rapidly the trephine works we can appreciate the quickness, simplicity and ease with which the operation was performed. The projecting ends of the cartilage having been removed the septum resumed its erect position. The mucous membrane was allowed to fall back into position and a compress of cotton was used to hold it so until union took place which was by first intention.

A most excellent feature of this operation is that perforation very rarely occurs. Unless the angle of deflection of the septum is extremely acute, it is almost impossible to produce a perforation. In a straight septum the trephine would have to be held at right angles to the partition to penetrate through it and therefore this accident would only be likely to happen in proportion to the acuteness of the angle or the amount of deflection present.

In the case above alluded to there was no perforation at all although the amount of dislocation was very great.

The results were extremely gratifying. The hearing promptly came up to ten inches in his left ear and 2 1-2 ft. in his right. The improvement in his enunciation was still more striking. Not only could he speak clearly and be heard by every one but he could hear plainly when spoken to.

I can add to this quite a number of cases many of which I have called attention to in the past and which have had what may be termed nose deafness as marked improvement in the hearing has resulted from the restoration of the nor-

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mal calibre of the nose and where no treatment whatsoever has been made to the ears, but the case above mentioned has been the most striking illustration of the effect of deafness upon the enunciation and the immediate change in the distinctness of his speech as soon as the hearing was restored. This fact was so noticeable that it was at once commented upon by his friends. One of these stated to me that the improvement was so noticeable that he would have known of the operation without being told. This gentleman had been to other specialists who had given a hopeless prognosis and at first it appeared to be justifiable because of the length of time which the deafness had lasted although it had become recently more decidedly impaired. He has no definite idea of how long the dislocation had existed but supposes that it occurred during childhood.

The theory that there might have been any hysteria or neurotic tendency about the case is entirely untenable because of the marked stertorous breathing while asleep and everything pointed to marked nasal obstruction.

Like so many clinical phenomena, nasal obstruction is attended by a great variety of symptoms dependent upon the exact location and character of the obstruction. The voice can generally be depended upon to indicate the kind and location of the obstruction as it varies from that deafness produced by hypertrophied tonsils to that resulting from a dislocation of the triangular cartilage. Recently a clergyman applied to me who was much given to open air preaching and who spoke as if he had a chronic cold in the nose. He was found to have marked deflection of the septum, the correction of which promptly restored his normal tones.

A repetition of these cases would seem to be needless and yet when these cases come in so often in which the condition has apparently been unrecognized one feels impelled once more to call attention to them.

DISCUSSION

BY DR. LEE:

It is with a great deal of pleasure that I endorse the remarks of Dr. Porcher.

The provoking part of it is, however, that he says that I do not have any definite idea of when this occurred. To tell you the truth, since I have known Dr. Porcher, I have not had an definite idea about anything. He says I do not have any definite idea of when this occurred. To tell you the truth, since I have known Dr. Porcher, I have not had any definite idea about anything. He says I don't know which ear I can hear best out of: maybe he is right but I know this: when my wife scolds me at night, I sleep on the left side, and I can't hear a word she is saying.

I was suffering with increasing deafness and I went to Dr. Porcher and got him to inflate the tubes. History repeats itself: The Doctor tells the student that when a man came to him with headache, he bled him in the foot; he comes back another time with the headache, and he bled him in the thumb (also that the patient died.) Well I went to Dr. Porcher for my ears and he began working on my nose, and he has very greatly benefitted my hearing. The best thing about it, my wife says, is that he has stopped me from snoring (Dr. Porcher is kind enough to call it "stertorous breathing" but most people call it snoring) and my wife says she wishes I had gone to him years ago.

I really owe Dr. Porcher an apology, for I have not been back to him recently, as he told me to, or I might have been entirely cured. I am glad to substantiate his remarks.

DR E. W. CARPENTER, GREENVILLE, S. C.

I think this paper very interesting. I think Dr. Lee and Dr. Porcher are at variance, however. I understood one of them to say the deafness was an "acute deafness." It is also interesting, if due entirely to the obstruction, as you would not expect to find all acute deafness due to an obstruction which had existed practically all his life.

Another point, which I would like to ask is, for the doctor to explain further the after condition of the cartilage, after taking out the two cones. My impression is that he took out a cone above and a cone below; if he did that, he still had a wedge of the cartilage in its original position, unless he fractured the pos-

terior attachment.

I would like for Dr. Porcher to explain in detail the use of the electric trephine in this case. I think there is nothing more useful than the swivel knife for the removal of the cartilage. Of course, there are other instruments used with great facility.

I want to congratulate Dr. Porcher on the beautiful success he had with his case and I hope his results will be permanent. Dr. Lee still has a nasal sound to his voice, but that may be due to some deformity which will be cured later.

DR. J. W. JERVEY, GREENVILLE, S. C.:

I am very sorry not to have heard all of Dr. Porcher's paper. The removal of spurs from the septum, for the cure of deafness, is sometimes remarkable in its results. It may be that the obstruction is in the opposite side of the nose from the ear most affected. I have never heard the thing satisfactorily discussed. It may be because the current of air is deflected and strikes upon the orifice of the tube in an abnormal way, and either one Eustachian tube or another is affected. I would like to ask, if, in this case, Dr. Porcher investigated the condition of the fossae of Rosemuller. There is no doubt but that there are granulations and adhesions here in many cases, causing tubal morbidity and this is very simply and easily understood, for the reason that they interfere with the normal work of the aerating apparatus of the middle ear. Inflammation sets up, and we have deafness. I am satisfied that a great many cases of improved hearing which result after the removal of spurs from the septum, are the result of removing granulations which are broken up purely accidentally by the point of the saw, while the spur is being removed, the result being improvement in the hearing. This would seem to be borne out further by the fact that improvement in the hearing is so uncertain, after removing spurs in the nose. No doctor would really encourage a patient to believe that there would be any practical improvement in his hearing after removing the spurs. He simply says: "I will remove it, and perhaps you will be able to hear better."

On the other hand, the attention being called to the condition of the fossae obstructed by adhesions, which naturally

interfere with the movement of the tube, the improvement in the hearing after their elimination is almost certain, if the deafness has not gone too far.

In the case Dr. Porcher has presented, the patient had gotten worse until the hearing was contact for the watch in the left ear. I have had about 300 cases of that particular trouble, and the hearing in that ear could not be improved to any practical purpose. I think it can be improved in the better ear, if the condition I speak of is present in the fossae and the improvement would be noticeable within half an hour, if operated upon.

Dr. Porcher says that he has examined this case and did not find that this improvement after septal operations is often obtained purely by accident.

DR. CHARLES W. KOLLOCK, CHARLESTON

Dr. Porcher's result is very pleasing, for the amount of work he had to do to accomplish this. If the removal of a cone or two of cartilage is sufficient for restoring these septa in the condition in which hearing or breathing will be improved, it certainly will be a great advantage over any other operation which has been devised. The sub-mucous operation is a dissection of the cartilage, which, to say the least, is a very difficult operation. I think comparatively few men can do it properly the first time. To begin with, your patient has to sit up to have it done. You have to dissect very carefully, in order to prevent breaking the mucous membrane, and you have to perform the operation with a nicety which few skilled men are capable of. Of course, it depends largely upon the number of cases one has. If you perform that operation several times a day, it will be different. The man who performs the operation once or twice a month will never obtain satisfactory results.

I don't propose to criticise the operation Dr. Porcher has referred to, but I think the difficulty would be after he made the dissection of the mucous membrane from the cartilage, and began to use the electric trephine, that it would be difficult to hold it in place. He seems to have had no difficulty, but it seems to me it would have been a difficult thing to do. We know that if the mucous membrane is broken on the opposite side from

the one where the operation is made, it results in a perforation remaining in the mucous membrane.

DR. PORCHER CLOSES

My friend Dr. Lee is a highly honorable man, and I know that he meant what he said when he told me before I performed the operation that his hearing was contact for the watch in the left ear and about ten inches in the right. Since then there has been a very material change and, of course, that is what he is confusing with the original condition.

So far as the amount of air pressure is concerned, I have for years been using the compressed air apparatus, which is pumped up to fifty pounds pressure to the square inch. While treating the Doctor on one occasion, I substituted the old Politzer bag, and I have forgotten just the expression he used, but I think he said it was a farce. I have never seen any bad effects come from the use of the compressed air, but you must recollect in this instance, the nasal obstruction had lasted so long that such a thing appeared to be utterly and absolutely useless, so much so that I did not want to subject him to this operation, for a long time, so I persevered with the use of the air pressure, until I became convinced that there would be no use in continuing it, as long as the front of the nose was stopped up. He kindly consented to allow me to make this operation for him, and the result was his hearing came back immediately. I told him I did not think it would be possible to make the hearing perfect, but I was very much gratified with the results.

So far as the cones are concerned, which Dr. Carpenter refers to, as you

know, a dislocation of this kind occurs frequently from a blow in the face; and the cartilage becomes knocked out of position. I saw such a case yesterday; a boy had had a fight and the cartilage appeared to be dislocated as the result of a blow. I am perfectly satisfied that as soon as the inflammation disappears, the cartilage will go back into position. As this knuckle of cartilage projects out into the nose, you dissect off the mucous membrane and it is comparatively easy to do. You introduce the electric trephine, the protuding ends are cut off, the remaining portion falls back into place and a smooth surface and open nose results.

Only a few days ago I performed this operation on a young lady. The removal was so complete that when I saw the patient several days after the operation and examined her, I could not tell at first which side of the nose I had operated on. Of course, when I looked on the inside, I could see the raw surface.

As regards the Fossae of Rosenmuller, I have not gotten that far in the doctor's case yet. I hope sometime to have the privilege, but his hearing has improved so much that I doubt if I ever shall see him in my office again.

So far as holding the trephine in position is concerned, it is the difference between theory and practice. You will find it much easier than you think. It is true that the cartilage is somewhat movable, but it is very easy to hold it in position, and you drill away to the surface and the parts promptly go back to the original position. I have performed this operation repeatedly and I think it ought to be used more commonly.

THE SIGNIFICANCE OF ANGIOSCLEROSIS IN THE EYE.

By CHAS. W. KOLLOCK, M. D., Charleston, S. C.

The study of the cause and prevention of disease has in recent years attracted so much attention that it has been feared by some the subject of treatment would be neglected. There is hardly good reason for this because, as the real

causes of certain diseases (such, for instance, as tuberculosis, yellow fever and diphtheria) have been discovered, the rational and proper methods of treatment have quickly been evolved and many diseases that were at one time attended by great mortality, are now but little feared, especially when seen and

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recognized in their incipiency. It is for this reason therefore, that the closest attention should be given to detecting and differentiating the earliest signs that point to serious changes in any portion of the body. Sclerosis of the blood vessels has long since been recognized as a serious condition not only of the vessels, but as associated with and followed by grave changes in other tissues. In no other part of the body can the condition of the blood vessels be studied so thoroughly and at the same time, with so much value as in the fundus of the eye. Here, as you well know, the walls of the vessels in health are transparent and only the blood current indicates their position and direction, but when the walls become visible, on account of certain changes, we have danger signals that only the ignorant and foolhardy can ignore. It is to the recognition and significance of these changes that I desire to call your attention. I need hardly say that accompanying diseases of certain organs (such as the heart and kidneys) and in some constitutional diseases changes are found in the blood vessels and it was thought at one time that they always followed the disease in the organs, which is true in some cases, but in others the vascular changes not only precede but are in part, at least, a cause of the organic lesions. If such is the case the early recognition of vascular changes should be of the greatest importance, for prompt and energetic treatment may stop the advance of disease and even bring about a cure. On account of the ease with which they can be seen the retinal vessels are especially adapted for study, while their wonderfully delicate structure may render them more liable to be affected by disease than many others. Then again it is reasonable to suppose that on account of their proximity to those of the brain similar conditions may be present in both. That this is a fact and no mere supposition can be proved. To Hirschberg is due the honor of having first called attention to sclerosis of the retinal vessels as being indicative of the condition of those in the brain. He reported a case of retinal arteriosclerosis in a patient who died shortly afterwards

of apoplexy. Since then many interesting and instructive cases have been reported and the subject has been exhaustively studied by Ræhlmann, Gunn, Coats, H. Friedenwald, C. J. Preston, C. S. Bull de Schweinitz and others. Hertel holds that retinal arteriosclerosis is not necessarily an infallible sign of sclerosis of other vessels and reports microscopical examinations of eyes in which sclerotic changes were found in the vessels where previous ophthalmoscopic studies had failed to detect any abnormality. Coats is of the same opinion and Ræhlmann does not permit himself to say that the condition of the retinal vessels is always indicative of those of the brain. But it is well known that the distribution of the carotid, especially that of the internal carotid, is most frequently attacked by sclerotic disease, therefore it is highly probable that signs of such changes will be found in the retinal vessels. A picture of the normal eye ground will be thrown on the screen in order that you may more readily recognize the changes produced by angiосclerosis. The color is a pinkish red with the nerve head a slightly lighter shade. The disc or nerve head is more or less round or elliptical in shape with the light spot near the center. Over the surface of the disc pass the veins and arteries, the former entering the cup and the latter emerging from it. In pairs (artery and vein) they traverse the retina in different directions, and both divide and subdivide into smaller branches. The arteries are more or less straight, or slightly curved, and the veins wavy, but not if such is the case the early recognition vessels a double contour and the veins are larger than the arteries in proportion of 3 to 2. Remember also that normally the veins pulsate, but when the arteries do it is an unfailing sign of disturbed circulation in the eye (glaucoma) or general circulation (aortic regurgitation). de Schweinitz divides the fundus signs of high arterial tension into *subjective* and *pathognomonic*. *Subjective* signs are variations in the caliber of both arteries and veins, abnormal tortuosity of

both and unusually light color of the breadth of the arteries.

The *pathognomonic* signs are changes in size and breadth of the arteries causing a beaded appearance, lack of translucency caused by the thickened walls and white stripes along their sides, and most important, a flattening of the veins when crossed or pressed upon by the sclerosed arteries. This causes an increase of breadth and an ampulliform dilation beyond the point of crossing. The same condition may be produced by the vein resting upon the artery. Edema of the retina may also be present and is seen as a gray opacity or mist about the disc while hemorrhages of various forms, linear, flame shaped and round may be seen in the retina according to their depths in its layers.

These changes may occur at any period from infancy to old age, but are more common after forty years. De Schweinitz reports them in a man of 37 and Mr. Gurn says they usually begin between forty and fifty, while it is not very rare to see old persons who have no such changes. According to Coats these conditions in old persons are often in part senile and for that reason it is hard to separate them from the pathologic, but when high arterial tension exists for any length of time sclerotic changes are sure to follow. Among the earliest signs is the so-called "cork screw artery" or "Crinkled retinal artery" of Alleman. This does not involve the entire vessel but is usually seen in a branch of a larger vessel as shown in the slide now before you.

Coats has called attention to the fact that sclerosis does not affect every portion of the vessel equally but serially, as it were, for it not infrequently happens that a portion of a vessel is seen as a white streak and further on its normal condition.

The flattening of a vein, where an artery crosses and presses upon it, is another most important sign, but this is not found at all crossings. The flattening is also seen where a vein crosses and rests on a stiffened artery, or its caliber may be changed by pressing against it. On the distal side the caliber of the vein is increased—ampulliform enlargement.

The *nerve head* is frequently changed in appearance by congestion. De Schweinitz says it differs from the streaked hyperopic disk and the flannel-red disk and retina of a strained eye, or one that has been exposed to heat or light, and it is duller red than that of neuritis. At later periods other changes follow, such as "silver wire arteries," where the entire coat has undergone change, perivasculitis and hemorrhages. The optic disks may become whiter and the arteries smaller, showing atrophy. It is thought by Bull (C. S.) and others that many apparently obscure cases of optic atrophy and simple chronic glaucoma are caused by pressure on the nerve at some part by a sclerosed artery—the internal carotid or ophthalmic. In such cases the direct vision and the field of vision are affected though the ophthalmoscope may reveal nothing.

The *significance* of these signs is of the greatest importance and can not be ignored by the clinician in studying arteriosclerosis and its resulting high arterial tension. Stengel says, "arteriosclerosis in its fully developed stage can be recognized with no great difficulty in most cases, but a positive determination of the existence of the earlier stages is extremely difficult, but most essential if we are to accomplish anything in the way of controlling the progress of the disease." The condition of the pulse, the heart sounds both at apex and over aortic area, the tracing of the sphygmogram and reading of the sphygmomanometer are necessary in the study of general arteriosclerosis but, as Stengel says, "The ophthalmoscope may reveal the positive evidences of vascular disease before the disease (arteriosclerosis) has become marked." Again he says, "If the four symptoms I have named (the condition of the pulse, the character of the heart sounds, the increased tidal wave on the sphygmogram and the elevation of tension recorded by the sphygmomanometer) were found in arteriosclerosis alone, the prognosis and diagnosis would be greatly simplified, but this is not the case. There are numerous and varied conditions of the system, organic and nervous in origin, that elevate pressure nearly constantly, and in which arteriosclerosis

has no part except, perhaps as a consequence. Any one of these conditions may occasion the four signs I have discussed." So far as I know these ophthalmoscopic signs are not found except where there is high arterial tension and therefore are exceedingly important. Mr. Gunn writes, "ophthalmoscopic examination is one of the most ready clinical means for the early detection of important arterial changes," and de Schweinitz adds, "And I think we may go further and say if the findings are positive they are diagnostic."

And now we come to consider the effect of angiosclerosis and high arterial tension on the eye and upon the general system. If not treated the pathologic changes increase and the vessels become more and more diseased and sooner or later the hemorrhages occur into the retinal layers or the vitreous humor. Upon the location of the hemorrhages depends somewhat the result. When the macular region is involved blindness or greater or lesser degree results. When occurring in other parts of the retina vision may for a time not suffer greatly but when it enters the vitreous humor a cloudiness follows that greatly interferes with vision and may leave permanent floating opacities. Proliferating retinitis, glaucoma, detached retina, so-called embolism of the retinal artery, optic atrophy and cataract are undoubtedly sequels to arteriosclerosis.

For general prognosis a knowledge of the condition of the retinal vessels is most important because of their proximity to those of the brain and it has been proven time and again that when there is sclerosis in the ocular vessels a similar condition will be found in the brain. But these changes will not be confined to the vessels of the eye and brain and a careful search will often show changes beginning or begun in other organs. In cases of beginning nephritis the symptoms that first attract attention are not infrequently found in the eye, while albumen may not appear in the urine until a later period. It is then that the quantity of per cent. of urea excreted should be learned. The early recognition of these initial retinal changes and prompt treatment may stop the advance of the disease or even effect a cure. Hemorrhages occurring in the eyes

of old persons are always grave symptoms for they usually precede apoplectic attacks. In cases of kidney disease they foretell a fatal result in the near future. In young persons, who have no kidney trouble they are usually caused by syphilis and, if properly treated, are not considered as serious as in other diseases. In pregnant women suffering from albuminuria angiosclerosis is not uncommon and is always a serious complication. When hemorrhages have occurred and optic neuritis exists together with headache and lessened area in the urea there should be no delay in bringing on labor. In many of these cases where the vision has been much impaired it will improve after delivery and even at times become normal or nearly so.

There is a class of persons who are high livers, who eat rich food, of which meat forms a large part; who drink freely and use tobacco inordinately, who may do a great deal of mental work and take little physical exercise. These are persons in whom we may often find angiosclerosis. They will complain of vague headaches, fulness of the head, and at times vertigo; glasses giving perfect vision do not relieve the head symptoms and at times the mere thought of mental exertion causes headache—the "sign of painful thought"—as called by Josue. In a recent article by him he cites a number of general symptoms which I may be pardoned for intruding here. "Vasomotor, nervous, respiratory, ocular, or auditory disturbances are also common with epistaxis, edema, arterial hypertension, or heart and kidney symptoms. Among the nervous troubles may be a lessened aptitude for physical and mental work, inclination to commence a new task transient loss of memory or a slight, transient difficulty in speech."

Again, he says, "when neurasthenia is observed in a previously healthy person between 45 and 50 years old, and no other cause can be assigned for it, incipient arteriosclerosis should be suspected." And now I wish to say that when the "cork screw twig" is found and the flattened, displaced and tortuous vein is observed, that the time for action is come for they are danger signals that call for a halt and a radical change in the manner

of living. Unless this is done we shall soon see constitutional changes and graver diseases follow and the condition of the eye will rapidly grow worse. The oculist has then a duty to perform beyond the perfunctory examination for the correction of refractive errors which may seem to cause the headaches and discomfort. He should search the eye ground over for any symptoms or signs that may indicate sclerotic changes and should they be found—however slight—he should advise a general examination for heart and kidney lesions and increased blood pressure. When taken in time fatal consequences may be averted

or at least delayed. And finally, to quote again from de Schweinitz, "it should not be forgotten that where ophthalmoscopic examination reveals positive signs of sclerosis of the retinal vessels, these assume, with comparatively few exceptions a position of diagnostic importance in the study of arteriosclerosis which equals, if it does not exceed, certainly in so far as cerebral arteriosclerosis is concerned, that furnished by the four important clinical symptoms of the disease. Hence the necessity of ophthalmoscopic examination in the study of any set of obscure symptoms which may be connected with early arteriosclerosis."

RETRO PHARYNGEAL ABSCESS.

By E. W. CARPENTER, M. D., Greenville, S. C.

The subject of this paper is an old one but one to which very little attention has been given, probably because of the relative infrequency of the condition.

There are a few conditions more difficult to recognize in its early stage, or more bewildering when seen in its full development. In the long experience of many busy men none have been observed, others have recognized only two or three, while many perhaps have gone their way unrecognized.

"The first mention of this affection dates back to the second century of our era, when Galen relates a case in his own experience. Since then no mention seems to have been made of it in medical literature until the middle of the 18th century, from which time until now very little has appeared in our literature." My attempt to review this subject for several weeks were disappointing. I could find only a few cases reported by Americans in short articles. Bokai of Budapest has collected over 500 cases, but I failed to find a translation of his reports on same. There exists not even a monograph on Retro Pharyngeal Lymph Adenitis in English.

After reviewing most of the reported

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cases for the last eight or nine years filed in the medical library of the Surgeon General at Washington, D. C. I have the assurance that I am not burdening you with a tame worn subject.

In referring to the etiology it is well to note the anatomy of the region. We find the three constrictor muscles overlapping each other and forming a large portion of the posterior boundary of the pharynx; between these are located a varying number of lymphatics, distributed to either side of the median line and differing in no material way from those which compose of the rest of the chain known as the waldyers ring. This chain drains all the cavities of the face, nares, region of the eustachian tube, pharynx, and perhaps being in direct connection with the lymphatics of the middle ear. Thus any inflammatory affections of these localities may cause an involvement of one or several of these glands.

Enlargement of the lymphatics has been referred to as Idiopathic, but the etiology differs only as to the kind of infection, causing the primary catarrhal disease. It is possible that any of the pus producing organisms can be found in the involved glands.

Very few cases have been reported in adults. When present in adults they are generally due to traumatism, syphilis, or

tuberculosis. The absence of these abscesses in adults is due to the early age at which the retro pharyngeal glands become quiescence or atrophy. The vast majority are found in early life, few occurring after five years of age, at this period there is the greatest activity of these structures, and more extensive occurrence of catarrhal disease of the nasopharynx.

The symptoms while characteristic, are frequently misinterpreted because most physicians depend on ocular inspection which is always unsatisfactory in infants, whereas no aid is as capable of such unerring precision as the finger, though I am convinced that one of the electrically lighted laryngeal specula will be of great assistance in the future for diagnosis and treatment. The early symptoms are those of naso-pharyngeal catarrh. These persist and are followed by pain and refusal of all food and drink. As suppuration advances signs of obstruction become apparent, causing a modification of the voice, the quality depending on the location of the mass, interference with respiration, typical position of the head, namely, extension and rotation with the mouth widely open. At times in very young infants labored breathing is the first indication of serious trouble. Just at this stage a broncho-pneumonia sometimes obscures the real issue.

The prognosis depends on the etiology. If as in some cases the infection has extended from the middle ear with necrosis of the temporal bone, and extensive cellulitis and burrowing of pus in the neck, the results are not as favorable as where the purulent foci are limited to the pharyngeal structures and evacuation is accomplished before spontaneous rupture, with the possibility of aspiration pneumonia, or asphyxia. A fair mortality rate is 5 to 7 per cent. I know of no special treatment that will influence these glands after they become infected.

Frequent errors in diagnosis are, simple rhinitis, diphtheritic paralysis, laryngitis, catarrhal or diphtheritic. Remember, if your finger is clean it causes very little discomfort, no pain and often much information is gained. It may pre-

vent the opening of an Anurism with its fatal results and malformation or malposition of the cervical vertebra will then be quickly distinguished.

The method of opening the abscess depends on whether it is due to a middle ear extension or not. If there coexists a necrosis of the temporal bone it is advisable to make an attempt to remove it, either through an external incision in front of the sternomastoid on a level with the larynx, or beginning at the tip of the mastoid posterior to sternomastoid muscle, by careful dissection the styloid process is reached then the retropharyngeal area is opened. Unless there is extensive involvement of the tissues of the neck, I favor the pharyngeal route because of the greater facility at the hand of the average man.

Care must be exercised in evacuating large collections of pus in the pharynx because it may be swallowed or aspirated or cause asphyxia. Probably the best position is with the child on a table, head much lower than feet and in pronounced extension. Then with the aid of the Jackson laryngeal speculum one can under direct vision, use either a sharp pointed scissors or knife for incising the mass. It is very important that an ample opening be made.

The following case illustrates the danger of the mouth gag. "Infant 15 months of age after a delayed diagnosis and when cyanosis was threatening a gag was introduced and cyanosis supervened it was removed and the patient restored; again introduced and the baby became livid, stopped breathing and was apparently dead. Artificial respiration, intubation, passing soft rubber catheter in trachea, through which no air could be forced until the bifurcation was reached were all without avail. The abscess being situated very low down it is possible that it was retro esophageal and encroached on the whole trachea as well as the larynx." The introducing of the gag causes a crowding backwards of the base of the tongue and surrounding structures; whereas the laryngeal speculum pulls them forward.

I have seen the following cases recently:

W. M. age 4 years, sick a few days

with acute catarrh and tonsillitis. When I saw him on account of his refusal to swallow anything mouth was constantly open, head extended and turned to the left, submaxillary, parotid and cervicle glands greatly enlarged, both tonsils inflamed and protruding right to a greater extent than left. All the pharyngeal tissues of a dark red colour. Temperature varying from 101 to 104, pulse rapid, quality good. Visual examinations of the throat failed to locate the trouble. I thought the condition was an unusually deep peri tonsillor abscess and decided to return the next day. When the patients condition was decidedly worse, I then introduced my finger into the upper and lower pharynx and discovered instantly a fluctuating mass low down on the right side extending over the median line and appearing to occupy the space from a level of the lower border of tonsil to pyiform sinus. With the child in upright position a sharp pointed scissors was plunged into the mass, opened wide withdrawn, and the child immediately inverted, at least an ounce of very foetid pus escaped with slight bleeding. The child was so exhausted it fell asleep in a few moments and recovery was prompt

and without complications. The subsequent history of this patient has been very interesting but probably has no connection with this condition.

Case No. 2 Infant Jackson, age 14 months. Its mother had just recovered from an attack of tonsillitis, when the infant had a similar infection. It was sick a few days when breathing became obstructed. Expiration was not noticeably interferred with, but inspiration was crowing and high pitched. I was called to do an intubation and was informed that Anti-toxin had already been injected. Patient was in extremis and was rapidly becoming cyanotic. A hasty visual inspection failed to reveal any inflammatory condition in mouth or pharynx but the finger recognized a fluctuating mass on right side extending over larynx and esophagus. A pair of sharp pointed scissors were plunged into the swelling, the infant inverted, and a large amount of horribly foetid pus escaped with free bleeding. This child was also deep in the sleep of exhaustion before its clothes could be changed. Recovery was prompt and unimportant. This case is interesting because a diagnosis of laryngeal diphtheria had been made and the house reported for quarantine.

THE PATHOLOGICAL SIGNIFICANCE OF DISEASED TONSILS

By JNO. F. TOWNSEND, M. D., Charleston, S. C.

This paper, gentlemen, would be much too long if I were to emphasize all of the conditions that come under this head, therefore, I would like to call attention to the fact that except for the bare mention of certain diseases claimed to be due to tonsillar pathology, I will lay especial emphasis only on diseased tonsils in relation to malnutrition of children, to tuberculosis and to rheumatism. And I have endeavored to so present the subject that it will find a responsive feeling among the general practitioners of medicine and surgery; in order to accomplish this I will only discuss the disease of vital interest and merely refer to those

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of less interest, but I would be glad to hear a discussion upon any of the conditions discussed or referred to.

The only thing to base a paper of this sort upon is hard cold facts that have stood the test of actual clinical investigation and pathological findings.

Therefore the first point in the chain of evidence is the tonsil itself. Exactly what constitutes a normal tonsil, is or rather has been, the subject of much dispute, but the conclusion generally accepted by competent men is that a tonsil with crypts or pockets in it is a menace to health, of this statement you will see proof of in this article.

The second point in the chain of evidence of this search for knowledge is the

lymphatic drainage of the tonsil. This is accomplished by both the superficial and the deep chain of cervical lymphatics.

This especial point has been the object of investigation and proof by many noted writers and the subject of many able papers. Briefly the result is as follows: Starting from the tonsil the lymph passes through the various subdivisions of the superficial and deep cervical lymphatics and lymphatic glands and finally empties into the Thoracic duct or the Vena Cava. It is thus that we have the blood infections general systemic infections with the Tubercl Bacilli as Tubercl Peritonitis, infections of the liver uterus etc cases of which have been reported.

But it is by their anastomoses that the lymphatics aid in causing the most dangerous and frequent diseases due to tonsillar infection. By actual experiment many have shown that the lymph current flows from the cervical to the peritrach eobronchial, the intertracheobronchial, the interbronchial and the posterior intercostal lymphatic chains. Consequently we have the infection transmitted from the tonsil direct to the upper lobe of the lung and to pulmonary lymph glands, as is illustrated by cases of apical pulmonary tuberculosis found to be due to tonsils containing tubercle bacilli. And as it has been found that the lymphatic stream is freer in youth than in adult life we consequently have this manner of infection occurring more readily in young life.

In connection with the drainage of the tonsils we find another important factor the lymph nodes. These are claimed by Manfredi to have a protective function, acting in three ways, 1 by filtration, proof of which will be seen later, 2 by weakening the organisms that reach them. This function supporting the theory of the phagocytic action of the tonsils and lymph glands. 3 by the whole organism gaining a more or less degree of immunity while 1 and 2 are acting, or in other words gaining acquired immunity.

The follicles of the tonsils constitute the third point and their contents the fourth point in the chain of evidence. Experimentally it has been proven that

little or no absorbtion occurs from the free surface of tonsils; but clinically and experimentally it has been found that absorbtion *does* occur from the follicles. These follicles have been found to contain the staphylococcus, the streptococcus, the pneumococcus, the Klebs-Loefler Bacillus, the Tubercl Bacillus and many other organisms besides containing the toxins generated by bacterial and fermentative action. The essentials for bacterial growth i. e. warmth moisture and nutritive pabulum, being present in the depths of these follicles, we can readily see that the germs having once gained entrance into the depths of the follicles may remain there for years awaiting an opportunity to gain entrance into the system but in the mean time they generate toxins that are being continuously absorbed into the blood stream.

The sixth and last point in the chain of evidence is, the absorbtion from the tonsil. There several factors that influence what kind of absorbtion may occur, i. e. whether it be a toxic or a bacterial material absorbed. Upon the nature of the material absorbed depends the nature of the disease produced. Toxic absorbtion always occurs if there be follicles in the tonsils evidences of this being more or less local irritation and impairment of the general health and enlargement of the submaxillary and cervical lymph glands as is seen in the onset of most cases of rheumatism, every severe case of tonsillitis and in the period of incubation of many of the acute infectious diseases.

Bacterial absorbtion does not occur so readily, for (Babbitt) "Epithelial tissues in general have a positive selective resistance to bacterial absorption, ____." By actual investigation we find that there are certain conditions that permit the bacteria to penetrate into the lymph stream. These conditions are 1: the number of the bacteria, 2: their virulence, 3 the individual power of resistance, 4 the condition of the tonsil. Only three proofs that this absorbtion does occur will here be mentioned.

1. The cervical glands become smaller when the tonsils and adenoids are removed.
2. The patients general health is im-

proved, weight increased etc., after the removal of the tonsils and adenoids.

3. That 75 per cent of patients operated on for removal of the cervical glands and cervical adenitis without removal of the tonsils develop lung tuberculosis. (Gisler.)

Several more points of clinical interest should be noted here:

The first being that a tubercular infection occurs more often from a tonsil showing slight evidences of disease, while toxæmia occurs more often from one showing marked pathological changes.

The second point is expressed by Walter S. Daly, who found the hypertrophied lymphatic ring of the throat to be a factor in the production of epileptic equivalents—the action being I suppose, through mechanical or toxic irritation of the nerve centres.

As a third point we find in infancy and childhood a tendency to lymphatic development as of tonsils adenoids and lymphoid tumors but in later life the epithelial structures tend to hypertrophy, as sclerotic changes and epithelial tumors. The results of this lymphatic hypertrophy are as follows: Locally we find characteristic bony changes, in the oral cavity they are the high arched palate the open bite, and irregularities of the teeth in the nose there is the deflected septum and a more or less continuous nasal or naso-pharyngeal catarrh and the dull apathetic listless adenoid expression.

The obstructed nasal breathing leads also to ineffective preparations of the inspired air to deformities of the chest as the pigeon breast, to changes in the blood as a reduction in the number of red blood corpuscles and haemoglobin and an increase in the leucocytes. This condition of defective nutrition leads to rachitis. Marfan upon examining a large number of cases found adenoid vegetations in 73 per cent. and enlarged tonsils in 63 per cent. of all young children with rachitis, due, he claims to the effect of the toxins on the unusually active marrow of the child. The respiration is especially ineffective in sleep the patient is thus deprived of its needed rest.

Ear inflammations are as extremely frequent complication of adenoids and

tonsillar hypertrophy, I have seen many cases traceable to this cause and cured by its removal.

A word here in explanation. In order to make this paper complete and up-to-date, it was necessary to use all the knowledge available on this subject, which happens to be quite voluminous. I have found many diseases ascribed to tonsillar causation, but it is more than I am willing to undertake to trace each of them to their cause. So I would refer those who wish to go into such question to the originals where they will frequently find complete clinical histories of the cases reported.

In order to explain how the toxins or bacteria absorbed from the tonsils may produce symptoms and disease in distant organs I will call your attention to some analogous diseases and their attendant complications. In diseases attended by bacteriæ or toxic infection or both we find that they are attended by a most varied list of complications and sequellæ. These complications and sequellæ are due to either a septicæmia as in typhoid fever or to a toxæmia as in diphtheria or to both. That we may have a toxic and a bacterial absorption from the tonsils is no longer a matter of doubt. We may thus have a toxæmia and a septicæmia having its aetiology in the tonsils and consequently producing the same complications and sequellæ that any disease accompanied by a toxæmia or septicæmia produces. We sometimes have under our care cases that we find impossible to cure, some few of these cases may be due to toxic or bacterial absorption from a diseased tonsil, and should be treated accordingly. I here refer to the cryptogenic diseases and in this connection the following report by Kleiminger is of interest. Speaking of the etiology of cryptogenic diseases he says that "General infections occurred independent of the tonsils in 7 per cent of the cases. In 83 per cent. the tonsils caused the general infection. There was tonsillar inflammation in 35 per cent, of cases of rheumatism and gout, in 42 per cent. of cases of nephritis, in 45 per cent. of cases of other affections that is there was tonsillar inflammation in 41 per cent. of all streptococcus infections.

Packard has reported five cases of endocarditis due to tonsillar pathology, in three of the five cases the heart was known to have been healthy before the onset of the tonsillar inflammation. Myocarditis and pericarditis have also been reported. Brown has also reported some cases and reviewed the literature on this subject.

Four cases of nephritis were observed by another writer in a short time. Iritis, we often found in our work at the Royal London Ophthalmic Hospital, to be cured only by treatment of the throat condition, and the same I still find to be true.

One authority even says that the eradication of the hypertrophied faucial lymphatics should eradicate infectious diseases, and from my observations of nearly a year in a large contagious disease hospital I believe there is some foundation for his claim. Infectious diseases are absent from animals having no tonsils.

Tuberculosis, arthritis and rheumatism complete my list but as I said I do not intend to furnish a complete list.

Tuberculosis: Schlenke, Schlesenger, Walsham, Ito, Dimochowitz, Krueschmann and Strassmann found on studying a large number of cases that the tonsils were tubercular in 69 per cent. of cases of pulmonary tuberculosis, and it appears according to Robertson and others that the tonsil if involved in a tubercular process it is always primarily involved.

Danziger reports in full seven cases of enlarged cervical glands associated with tuberculosis of the tonsil. The tuberculous nature of the tonsil being proved by the inoculation of the guinea pigs.

Donaghue claims that the infection of tuberculosis starts in the mouth rather than in the general system or in the lungs.

In an examination of 3,000 cases 8 per cent of all tonsils and 15 per cent. of all adenoids were found to contain evidences of tuberculosis. Proof in part is as follows: Robertson found the infected cervical lymph nodes in some cases to gradually disappear after the removal of the infected tonsils and adenoids. The glands being able by their phagocytic ac-

tion to destroy a certain amount of tubercle bacilli. Cases of apical tuberculosis resulting from a tubercular infection of the tonsils have been too frequently reported in recent years to admit, any longer of any doubt of their occurrence. Especially since full clinical histories frequently accompany the reports of the cases. In one case reported one tonsil was found to be healthy and the other to contain tubercular infection. A dull spot was found on the apex of the lung on the side of the infected tonsil, this was associated with a rapid loss of flesh, night sweats and a hectic flush. After the tonsils were removed the patient regained the lost vitality, the enlarged glands disappeared, the fever and the night sweats ceased and the dull spot cleared up. It is of interest to note that according to Osler, tuberculosis starts in the apex in 40 per cent of the cases.

Potts disease has found to have been caused from a tonsil infected with tubercle bacilli, through infection of the retropharyngeal glands.

Rheumatism and arthritis seem to be associated with a toxic rather than a bacterial absorption from the throat, and their onset depends upon some peculiar susceptibility of certain persons or rather upon their lack of opsonic reaction to the toxins absorbed. (Goodale) It is now generally conceded that rheumatism is a disease of the infectious type and that some form of streptococcus is responsible. There is practical unanimity also that entrance into the system is obtained by way of the mouth, though some part of the Waldeyer ring which is composed of the tonsils and adenoids. Dr. Welty believes that many cases of acute rheumatism are none other than the result of absorption from a streptococcus infection of the tonsils. It is a matter of common knowledge that tonsillar inflammation generally precedes an attack of rheumatism or arthritis and many cases have been reported where removal of the tonsils have resulted in a cessation of the joint and rheumatic symptoms.

Some of the laity and also some doctors claim that the tonsils have a function to perform and therefore should not be

removed. With regard to the function of the tonsil there is still much discussion into which I will not enter. Whatever may be their use they certainly cannot functionate when markedly pathological—no organ does. At any rate statistics do not indicate any systemic depreciation either general or in special sense organs after the proper removal of diseased tonsils and adenoids.

Having shown what disease may occur and how they are caused I will now briefly refer to the treatment. Removal of diseased tonsils with a tonsillotome is not an effective method of treatment in the majority of the cases for by that method the follicles are not removed *in toto* but the most diseased part of the tonsil is left in the throat. There are therefore certain essentials that must be fulfilled whatever operation we use.

1. Complete removal of the tonsillar follicles. This frequently is not accomplished by the tonsillotome. The patient being troubled all through their life with concretions forming in the ends of the follicles that the tonsillotome has left in the throat. The tubercular infection lies in the depth of the follicle—the part that the tonsillotome leaves.

2. The upper and middle follicles do not drain so they should be removed com-

pletely.

3. The arterial supply enters the lower and outer angle of the tonsil, there is therefore less bleeding from the upper and middle part of the tonsils.

4. Removal of the cervical glands in adenitis without removal of the diseased tonsils results in 75 per cent. of the cases, in the subsequent development of pulmonary tuberculosis.

CONCLUSIONS:

1. The defensive action of the tonsils, if any ever existed is easily overcome, especially in childhood.

2. The public should be educated that enlarged tonsils are frequently the site of tubercular infection.

3. Tubercular infection occurs most often from a submerged tonsil or an enlarged tonsil that shows slight evidences of disease.

4. Tonsils may be the source from which tubercle bacilli are introduced directly into the blood stream.

5. Infectious diseases are rare or not found in animals having no tonsillar tissue.

6. An enlarged tonsil is to all intents and purposes nearly always a diseased tonsil.

7. Generally speaking a tonsil that can be seen is diseased.

APPENDICO-CAECOSTOMY FOR THE RELIEF OF MUCOUS COLITIS AND CHRONIC DIARRHEA WITH REPORT OF CASE

By H. R. BLACK, M. D., Surgeon Spartanburg Hospital, Spartanburg, S. C.

The operation I have styled Apendico-caecostomy, for want of a better name, is practically a Gibson-Bolton caecostomy; the difference being that I infolded the appendicular opening into the bowel instead of making another opening in the caecum.

On July 21st. of this year I opened at McBurneys point in a case of mucous colitis with the view of establishing a fistulous opening for irrigating the co-

lon from above, downward. After exposing the head of the caecum the colon was found studded with tubercles. I also discovered a chronically inflamed appendix, the adhesions being so well organized that the appendix could not be freed without destroying its circulation. I, therefore, amputated the appendix at its base and utilizing the appendicular opening, I inserted a No. 12 soft rubber catheter into the lumen of the gut and closed the wound after Gibson's method, used by him in right inguinal colostomy. I did this operation without thinking

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that I was doing an original technique in utilizing the appendicular opening in the method which I am going to describe I have not been able, since, to read of such an operation in any work to which I have had access.

In reply to a communication dated October 26th., this year, Dr. S. G. Grant, of New York, he informs me that the operation has been done three times, first by an English physician and twice by himself, when he expected to do an Appendicostomy. In one case the appendix was strictured near its caecal attachment, and in the other case it was too short, which rendered it unfit for irrigating purposes.

The steps in the technique of the operation as done by me was as follows: Make a small gridiron or intermuscular incision at McBurney's point, expose the head of the colon, and amputate the appendix at its base. A tier of Lambert serous surface of the bowel, two above and two below the appendicular opening, a No. 12 soft rubber catheter being now inserted into the lumen of the bowel, the sutures are tied, thus inverting the wall of the gut and forming a valve like arrangement. A second tier of sutures are introduced in a like manner, the ends of which are left long and then being brought through the margins of the abdominal wound are used to close the latter, thus anchoring the caecum against the parietal peritoneum. After union has taken place, which generally requires ten or twelve days, the catheter is removed and re-inserted whenever it is desired to flush the bowels. The fistula is best controlled by a small pad or compress and the patient is allowed to be up and about.

The greatest objection to this operation is the tendency of the fistula to close. This difficulty can be met, however, by requiring the patient to wear the tube two or three days at intervals of ten days or two weeks. As the operation grows older it may become necessary for the patient to wear the catheter every night to prevent its closure.

The opening should not be allowed to close for several weeks or a month after the mucous has ceased to pass, as it

may return. In tubercular cases it may become necessary not to allow the opening to close at all. By far the most popular surgical procedure thus far devised for the treatment of chronic intestinal discharges is appendicostomy.

This operation was devised extemporaneously by Dr. Robt. Weir in 1902 for the treatment of amebic dysentery. He made a small incision at McBurney's Point, seized the appendix, dragged it through the abdominal wound and stitched it to the skin. "After union had taken place and the peritoneal cavity was shut off" he amputated the appendix and utilized its opening into the caecum for through and through irrigations of cold water.

The technique of the operation for appendicostomy has been very much improved by Mayor, Tuttle and Dawbarn. After making the usual gridiron incision about two inches long, seize and drag the appendix up into the wound, tie the artery of its esentery and free the organ down to its base, then anchor the caecum to the parietal peritoneum at the lower angle of the wound by sutures on either side and above, the last suture being used to close the peritoneum. "The lesser appendicular artery should not be included in the side sutures" (McQuire). (Moynihan drags gently upon the appendix until its base is on a level with the parietal peritoneum and stitches the meso-appendix to the latter by a single catgut suture.) Then close in the usual way by layers, wrap the appendix in guttapercha or rubber tissue and apply the usual dressings: Remove the dressings in forty-eight hours and snip off the appendix which is usually found to be gangrenous half an inch above the skin. Then introduce a soft rubber and throw a ligature around the stump of the appendix to secure the catheter and to prevent leakage.

It may be necessary to dilate the appendix before a tube can be introduced. If the bowels are distended, the appendix may be left open for the escape of gas, otherwise the tube is bent on its self and is fastened with a safety pin or clamped with haemostat. Irrigate on third or fourth day. This is about the technique as described by Stuart Mc-

Guire.

This is an admirable plan of treatment in chronic diarrhea, mucous colitis, amebic dysentery, syphilitic and tubercular ulcerations of the bowels. Usually the opening of the appendix will close spontaneously, otherwise it can be made to do so by destroying the mucosa with nitric acid, or Paouelin cautery.

Gant says that when the "appendix is small, short strictured or is firmly bound down by adhesions it is useless for irrigating purposes. Such cases are ideal for appendico-caecostomy. He also states that the "appendix occasionally has a tendency to slip down into the abdomen during post-operative vomiting and early attempts at irrigation and cites one of his own cases where the appendix became necrotic and death ensued from strangling of the caecum, presumably the result of tension."

In cases where there is an ileitis and ulcerative colitis, Gant opens the caecum at or outside the longitudinal band directly opposite the ilio-caecal valve and irrigates both the small and large intestine at the same time by means of an instrument especially devised by himself. Caecostomy whether performed as described above, or by making fresh opening into the caecum and appendicostomy are valuable procedures. They are simple effective and comparatively free from danger. Gant says he has no more hesitancy in advising caecostomy and appendicostomy, for the relief of chronic diarrhoea than appendectomy for appendicitis. Tuttle, however, refers to subacute appendicitis as a reflex factor in the production of mucous colitis and speaks of a number of patients suffering from digestive disorders, mucous and membranous discharges with general debility and nervous exhaustion that were promptly relieved by the removal of the appendix. He also speaks of floating kidneys as a cause of colitis that demands restoration and fixation to prevent friction movements over the intestines and speaks of several cases that have been cured by anchoring the kidney. Adhesions, tumors, ovarian uterine hard fecal masses, etc. may also occasion the disease and should be thought of in our efforts to locate the cause of

colitis. But the principal cause of mucous colitis, which this paper is dealing with, is intestinal tuberculosis and the final results of treatment are far more important than the technique described above. It is this pathological condition that I especially desire to emphasize and which when treated locally by means of a fistulous opening in the caecum or large bowel enables the surgeon or physician to flush the colon from above downward.

I am confident that many cases of tuberculosis of the bowels could be cured or held largely in abeyance if one had them under local application. I believe, also that all chronic discharges from the bowels characterized by blood, pus, mucous and digestive disorders, that have resisted the ordinary methods of treatment by the mouth and rectum should be subjected to fistulous openings in the right side and irrigated through and through. If so, I believe, a number of them would be found to be tuberculous, a large per cent of which would be cured, and many would get a new lease on life that hitherto have been regarded as hopeless.

Every practitioner of medicine loses annually one or more cases of chronic diarrhoea or dysentery that could have been cured perhaps by local applications, or the disease held in abeyance by colonic lavage, along with constitutional treatment, fresh air, and good food.

REPORT OF CASES

L. G. American, white, mill employee, born May 23rd 1879. History—Is said to have had white swelling in the left leg at the age of ten months, no necroses of bone and finally made a good recovery, but did not walk until sixteen months old. Gives the history of three attacks of pneumonia, at the ages of nine, fourteen and twenty three years, respectively. Made good recovery from each attack except the third one, from which he suffered more or less pain in the right lung for three years. During his nineteenth year he was troubled with ulcers on his left leg, which annoyed him for a period of almost two years, and has several large scars as a result. He has been afflicted more or less since

with small sores on same limb. In his twenty first year he had a painful attack of appendicitis and was treated by Dr. J. O. Vernon of Wellford—no operation. Six months later he had measles, followed by dysentery and mucous stools four months after this he had typhoid fever and at the age of twenty three years had a carbuncle on back of neck, and a large boil near the anus, which perhaps was an ischio-rectal abscess. Had small pox during same year.

His present condition began with diarrhoea and mucous stools in August 1908, followed by constipation, but occasionally he had suffered some intestinal disturbances during the previous four years. Family history negative. I saw him for first time January 5th., 1909. He had been confined to his bed for two months was emaciated and reduced from 175 pounds—his usual weight—to 100 pounds. He was confident that he had had no trouble with his lungs or legs since he felt the first symptoms of his present trouble. I am equally confident that he is now free from pulmonary disease and that his leg is in good condition. Patient was very despondent and had a feeling of dread; his bowels were being irrigated several times a day with normal salt solution, and various other injections had been used in the past two months. He was admitted to Spartanburg Hospital April 3rd., 1909. He was weak, despondent, nervous and obstinately constipated, complained of pain and burning over right hepatic flexure. Tormina and gripping pains always preceeded the bowel movements when mucous was passed. Complained of pain and tenderness in his rectum, an examination of which by Tuttles proctoscope disclosed the presence of a large ulcer encircling quite half of the lumen of the rectum just below the internal sphincter muscle. Its edges were ragged and red, not gray and somewhat painful after fecal movements. The ulcer was thoroughly curretted and dusted daily with iodoform powder. After two weeks treatment it disappeared. The sigmoid was also examined by Tuttles Sigmoidoscope, but there was no evidence of disease except a few abrasions and congestive spots, due perhaps

to frequent washing. No microscopic examination was made of the scrapings but the finding of tubercular bacilli would not have been positive proof of a tubercular ulcer, as the caecum was studded with tubercles as shown later. Tuberculosis of the caecum is not infrequent owing to the preponderence of solitary follocles in the illeocaecal region. In 500 autopsies by Fenwick he found tubercular ulceration of the rectum and sigmoid 14.1 per cent and 13.5 respectively. "No case is reported, however, in which these were present without involvement of the lungs and other organs." Tuttle mentions two cases that appeared to be primary tuberculosis of the rectum

Tubercular ulceration of the rectum is rare without involvement of the ilium and caecum

To make a positive diagnosis excise the base of the ulcer and examine for giant cells and tubercular bacilli, although this was not done in the present case.

Diet consisted of beef, mutton, fowls, fish, eggs and almost anything of a nitrogenous type was allowed. Only Graham, bread or bread made from whole wheat and toasted loaf bread was admissible.

Celery, spinach, lettuce and such vegetables were admissible. Milk was disagreeable, as it seemed to form hard insoluble stools and increased constipation.

TREATMENT:

To relieve constipation malt and cascara were ordered at bedtime; at other times equal parts of castor oil and glycerine, tablespoonful doses of each, were given daily with very little appreciable results except to soften the stools. Other laxatives were also given.

Anti-fermentatives, such as soda bicarbonate, salol, etc, pancreatin, alteratives and tonics were all prescribed with little benefit, except there was some gain in weight and strength, which in all probability was due to systematic feeding. The mucous did not lessen nor did the tormina and gripping pains preceding its passage.

With patient in knee-chest position the colon was daily irrigated with warm

soapsuds through a large Wales bougie or long No. 16 soft rubber cathether. After return of which a pint or a quart of 10 per cent solution of aqueous fluid extract of Krameria was instilled into the colon through a fountain syringe and various other solutions were tried. Solutions of silver nitrate, normal salt, etc were also used from time to time.

On several occasions an operation was suggested, but patient objected..

After remaining in the hospital nearly three months the patient left on June 29th much discouraged and despondent. Not much improved except a slight increase in weight.

He was readmitted July 19th. After the usual preparation on the 21st, a small intermuscular incision about two inches long was made at McBurney's point and the head of the colon was exposed and found to be studded with tubercles. The appendix was doubled on its self and firmly bound down with adhesions, which were so well organized that it was impossible to free the appendix without making a longitudinal incision over the appendix down to its fibrous coat. Having thus stripped the organ of its serous and muscular coats or coverings, appendicostomy was out of the question. It then occurred to the operator to amputate the appendix at its base and do an appendico-caecostomy, by utilizing the appendicular opening, without any knowledge of this method having ever been adopted. The tubercular area was well sprinkled with powder of iodoform and the caecum was anchored as above described. On the 25th of July a fountain syringe filled with thick soapsuds was attached to the soft rubber catheter in the bowel and the colon was irrigated through and through from above downward. Six quarts was necessary to move the bowels, the water did not return clear as the irrigation was discontinued on account of some nausea pain and weakness. July 26th the second irrigation. Six quarts thick soapsuds followed immediately by five quarts saline, bowels moved freely, finally returned clear with considerable mucous, some pain and weakness, but was relieved in fifteen or twenty minutes. July 27th third irrigation with same re-

sults. July 28th 4th irrigation—nine quarts thick soapsuds bowels moved freely and returned clear followed by nitrate of silver 40 grains to quart, some pain little nausea and some mucous.

These irrigations were kept up until August 23rd when patient left hospital, 54 irrigations, in all 530 quarts. Flushings were always continued until water returned clear, followed with nitrate of silver which was gradually increased to 1-2 oz. to the quart. When used strong it is best to follow with normal salt solution. The silver nitrate was never used more than a week at a time. It was then alternated with salt solution, etc. Emulsion of iodoform also came in for its turn, also hydrastis.

After leaving hospital patient was given ichthylol by mouth three times a day, with a 2 per cent. solution of Methyline blue to be used instead of the silver nitrate. It is difficult to say which has given better results, the silver nitrate or the Methyline blue, but I am inclined to the latter although the improvement has been steady from the time of operation; wherefore I am convinced that much of the benefit is due to the mechanical effects of the irrigating fluid in cleansing the bowel and removing the toxine.

A good, wholesome diet has been kept up during this treatment and the patient kept out of doors and the results have been most satisfactory. While he is still passing some mucous at times, is more or less constipated, yet the pain over the right hepatic flexure had disappeared, due probably to the removal of the inflamed appendix. He looks hale and hearty and weighs 171 pounds.

Whether he will ever be able to discontinue the irrigations or not, he has been made comfortable and I believe he will make a final and complete recovery.

He goes wherever he chooses, irrigates himself but is compelled to wear the tube at night to keep the opening from closing. Otherwise the opening gives no trouble.

Due credit is given Dr. G. W. Heintish for assistance in the operation and Dr. W. G. Sexton for administering the anæsthetic.

Since writing the above, patient in a letter dated December 1st saying mucous

is disappearing and that the bowels are not so difficult to move.

SOME RECENT DISCOVERIES PERTAINING TO DIGESTION AND INTESTINAL DISORDERS

By FILLMORE MOORE, M. D., Aiken, S. C.

Pawlow has made a most interesting series of laboratory demonstrations for which he has been awarded the Noble Prize. The first and most striking of these demonstrations is perhaps what he calls the psychic influence over the secretions of the digestive juices—the tremendous value of appetite or hunger as a forerunner of the act of eating. He has made a scientific demonstration of the old saying that "Hunger is the best sauce."

What is hunger or appetite? Pawlow describes it as an "intense longing for food." Contrary to ordinary belief, it is a mental, rather than a physical, sensation. It is that feeling which one has who has fasted or abstained from food till the thought, the sight, or smell of food arouses an *intense longing for it*—a sensation rarely experienced by civilized man according to this definition. The imagination plays an important part in this sensation, which is a sort of compound between physical need and mental desire, bridged over by the imagination. Passionate desire is another term used to designate this experience. Pawlow found that in dogs that had been fasted three or four days the sight or smell of food would excite the freest possible flow of both saliva and gastric juice. It not only "made the mouth water," but the stomach also. Even the sight of the person who usually fed the dogs would sometimes start this extraordinary flow of digestive juices.

Another remarkable thing discovered by Pawlow was that the quantity of these secretions excited by this "intense longing" was many times greater, in a given time, than under ordinary circumstances. Not only was the quantity great-

er, but the quality, or power to digest food was much intensified augmented something like five fold. He also found that in dogs that had not been subjected to the fast, had been fed within ten or twelve hours before the experiment, this, as he calls it, "appetite juice" was not secreted. He proved that certain foods taken into a stomach into which no "appetite juice" had been secreted remained undigested. Contrary to what had hitherto been assumed by physiologists and physicians the presence of food in the stomach, is not a guarantee that the gastric juice will be secreted to digest it. He found that certain kinds of food by reason of chemical excitation would arouse gastric secretion, but both the quantity and the quality of such juice was much inferior to that secreted under the influence of a passionate desire for food, and also that the time required for such secretion and digestion was far greater than that of "appetite juice" and the digestion resulting from it. He also says that contact between the food and the stomach wall may indirectly call the activity of the glands into play by awakening or increasing the desire for food. I have often verified this statement by observation on myself. I have had a sensation which is ordinarily called hunger, but which is really due to the presence in the stomach of undigested food, several hours after eating. If, instead of eating something I only imagined something to eat, in a short time I felt the movements of digestion begin and a little later I felt satisfaction better than if I had actually eaten. So it seems to be possible for us to use our minds or imaginations both to increase the quantity and improve the quality of the digestive secretions and that we can turn this faculty to account just before and during the meal and also some time af-

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terward to complete the process already begun, but not finished. "The passionate longing for food—the appetite—alone brings on this secretory effect in the stomach. It is by the establishment of this passionate desire for eating that unerring and untiring nature has linked the seeking and finding of food with the commencement of the work of digestion." (Pawlow.) This agency (appetite) which is so important to life and so full of mystery to science, has now become at length incorporated into something tangible, transformed from a subjective sensation into a concrete factor of the physiological laboratory.

Since Pawlow's demonstrations we are justified in saying that the appetite is the first and mightier exciter of the secretory nerves a factor which embodies in itself a something capable of impelling the secretion of large quantities of the strongest juice. "We may not venture to say explicitly, *appetite is juice*, a fact which at once displays the preeminent importance of the sensation of hunger."—

"To restore appetite to man means to secure him a large stock of gastric juice wherewith to begin the digestion of a meal." So much for Pawlow.

Horace Fletcher, working in this same line, has also made notable discoveries and demonstrations. He has shown that the nerves of taste, whose terminals are the circumvallate papillae, also play a very important part in the digestive processes. He discovered that whereas appetite is the all important element in the secretion of the gastric juice this "passionate longing" is only satisfied really and perfectly by thorough chewing and tasting of the food. We know now that food introduced into the stomach without being thoroughly tasted and mixed with saliva does not satisfy hunger. The experiments of Fletcher and others have demonstrated the tremendous importance of the mouth as a digestive agent and organ. The mouth, with its appendages, is the only digestive organ under voluntary control, it is the only one located above the collar-bone the region in which it is still possible for man to develop and progress. Hence it is that

discrimination and choice and responsibility are located in the mouth. Tasting food is really testing it. To satisfy the taste for food is the only true way of meeting the need for food. To educate and refine the taste is the way to elevate and purify the body. Good taste has always been regarded as an index of good breeding.

As Pawlow showed that appetite appeared only after a fast, so too Fletcher has proven that the acute sense of taste or enjoyment of food comes only after abstinence. So we may say that *appetite* is intense desire for food and that taste is the intense satisfaction experienced in eating when appetite is present. Taste is the normal and only true satisfaction of appetite.

Fletcher and others have found that eating to meet the demands of a normal and insalivation of the food is followed by certain very important and striking consequences. The first effect as we have noted is the sense of enjoyment and satisfaction. The next result is that when the food has been thoroughly chewed and tasted and liquified there arises a natural and involuntary impulse to swallow in contrast with the ordinary enforced swallowing. In the rear of the mouth at the entrance of the oesophagus there is a sphincter which relaxes automatically and allows the well prepared food to pass.

Another striking consequence of this mode of taking nourishment is the sense of satisfaction that is produced by small quantities of "tasty" food. And this is followed by a sense of lightness and well being in the stomach. But it is in the intestinal tube perhaps particularly in the large bowel, that the most striking and important results from the medical viewpoint, are observed. The food taken and tasted to satisfy the normal appetite is so much less in bulk and so much more completely digested and absorbed that by the time it reaches the large bowel there is very little residue left. Instead of filling it to distension, so that at least one evacuation per day is rendered necessary, it is found that a movement twice a week is all sufficient. Indeed in certain of the best experiments

a movement once in two weeks sufficed. It was also found that the character of the stools were greatly changed. For example, there was no offensive odor and the foeces were pillular in form and two ounces was an average weight.

Metchnekoff, Strasburger and others have been studying the intestinal flora and they find it very rich and varied. And, as Metchnekoff remarks this is not surprising, seeing that under ordinary methods of eating, etc. we have all the most favorable conditions for the propagation and culture of various germs. We have an abundance of food for them to live upon and we have heat and moisture and "nothing to molest nor make them afraid." The researches of these men have made it clear now that this (the colon particularly) is a breeding ground for numbers of so-called pathogenic bacteria and it is suspected that when the field is thoroughly explored it will be found that nearly all of them have their seat and base of supplies in this region. Many and various experiments have been made in the effort to cleanse and disinfect the bowel and free it from the baneful bacteria that made their nests there. We can not now stop to consider them. Metchnekoff thinks it has been demonstrated that the colon is for man a useless organ. Nay, more, he thinks it a very dangerous appendage, for the reason, as he says, that "the most important of the microbes which inhabit the body belong to the intestinal flora, which is abundant and varied, especially in the large bowel." He further says that "antiseptic treatment of the intestine not only does not succeed but sometimes has a harmful effect on the body. Strasburger's conclusion was that "the attempt to destroy the intestinal microbes by the use of chemical agents has little chance of success." He also suggests that if the food can be more completely digested and absorbed before reaching the site of the microbes that there will be the less pabulum left for them to live on, and remarks that the beneficial effects of withholding food in the treatment of acute diseases of the intestine are to be attributed to this same reason.

Metchnekoff thinks that he and his as-

sociates have made an important discovery in the fact that lactic acid inhibits intestinal putrefaction and harmful fermentation (the work of certain microbes.) Pasteur discovered the lactic acid microbe and there is a very vigorous variety which they have named the Bulgarian microbe, because first discovered in Bulgaria. The lactic acid microbe is the agent which sours and clabbers milk, making clabber, buttermilk, etc., forms of food long known and extensively used by man, particularly in hot climates.

Clabbered milk is strongly recommended by Metchnekoff. They now have cultures of the Bulgarian microbe in powder and tabloids and it can be administered in these forms. The claim is that the microbes which cause putrefaction and harmful fermentation in the intestine are the dangerous ones and that the lactic microbe inhibits the action of these germs. At any rate, it is now made clear that any excuse of food whether animal, vegetable or fruit, that is taken into the digestive tube (and not digested and absorbed) becomes ready pabulum for these various microbes and Metchnekoff says that "the lactic microbes certainly prevent the multiplication of other microbes, as for instance, those of putrefaction, but are incapable of destroying them."

In this connection it is of more than passing interest to note that a Royal Commission, appointed by the British Government to investigate the matter, has recently reported that the great preponderance of evidence is in favor of the view that tuberculosis is conveyed by food through the alimentary canal rather than by air through the air passages. Indeed, the evidence is cumulative which points to the intestines and particularly to the colon as the culture bed for the tubercle bacillus as it is for so many other pathogenic or harmful microbes. I have little doubt that this is the truth of the matter and that they gain entrance to the general system only after there has been a lesion made in the lining and protective membrane of the bowel. I expect shortly to see this view of the matter taken by the leaders in the diagnosis and treatment of this dread disease. In fact

I am very sure that there is a longer or shorter period of preparatory disorder of the functions of the bowel in which there is great activity of the putrefaction and fermentation microbes which prepare the ground and break down the barriers for more deadly bacillus. When this is fully recognized we will turn our attention to dealing with these microbes and not wait till the more dangerous ones, such as the typhoid, cholera and tubercle bacilli manifest. We will also turn our attention to food and eating as by far the most important matters to be dealt with, and we will recognize the work of such men as Pawlow, Metchenkoff, Fletcher, Strasburger and others as of epoch making value. At least it is a most interesting and promising prospect that we get from

the study of this subject, in the light of these recent experiments and demonstrations and the belief gains and courage grows in us that the way to prevent or to inhibit the action of these harmful microbes of the intestinal flora is being blazed out and that we are nearing the time (if not already arrived) when the entire tract from the mouth to the arms will be completely under intelligent control and guidance and that our weapons of warfare on these deadly enemies can be brought to bear on their most secret hiding places, and the entire field can be swept, either by seige or by storm. We can either starve them out, or else we can drive them out by friendly ferrets in the shape of lactic acid microbes or other enemies of our enemies.

VISCERAL SYPHILIS

By J. B. SOSNOWSKI, M. D., Charleston, S. C.

The title chosen for this paper is somewhat too broad, as I intend no wide discussion of syphilitic lesions of the thoracic and cranial viscera, but only a brief and rather random consideration of some lesions of the abdominal viscera. Otherwise, the subject would be too long for our consideration today.

Having recently had occasion to look into the subject of visceral syphilis, I was struck by the paucity of literature on syphilis of the intestines and stomach and to a less marked extent, of the other abdominal viscera. This seems strange in view of the fact that mucous membrane and glandular structures are favorite sites for the onslaught of both secondary and tertiary luetic lesions.

As the occurrence of a primary lesion of syphilis in any portion of the abdominal viscera—save perhaps in the lower rectum, not properly classed as abdominal—is a most rare improbability, we may limit our consideration to the secondary and tertiary lesions occurring in these organs with, I believe, more frequency than is generally recognized. The reports of autopsies of various writers

give a very small proportion of gastric and intestinal affections due to luco, but these do not take into consideration the numerous cases in which occurred symptoms referable to the digestive tract during the course of the disease. Chiari, in 1891, reported in an examination of 243 cases with anatomical lesions of syphilis at autopsy, two cases of gumata of the stomach and in 1893, Bittner, from Chiari's laboratory, reports three more cases—two in fetal foetuses and one in an infant which lived but two and one hours. In 1896 Stolpher reports one case of gastric gumma occurring in eighty-six cases on anatomical syphilis examined postmortem in three years and Flexner, in 1898, reports another case and collects twenty-four cases from the literature. There have been a few other cases reported since in which the diagnosis is undisputed and others in which there is doubt, but there seems to be a unanimity of opinion that lues of the gastro-enteric canal, save of the rectum, is rare. Even the Index Catalog of the Surgeon General's library gives but scant literature on this subject. White and Martin, and other writers on syphilis, merely state that syphilis of the intestinal tract may occur but is rare. Osler states that

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"syphilis of the stomach is excessively rare—Gummatus involvement of the small intestine and cecum may occur occasionally." With all this weight of authority on one side, we cannot help believing that for some reason—possibly due to their abundant and freely anastomosing blood supply—the abdominal viscera are relatively free from the ravages of syphilis. On the other hand, this very proponderence of authority will serve to make many men chary of making a diagnosis of syphilis of the intestine, even when the evidence points toward that condition. As pellagra and ancylostomiasis were not recognized here until recently, though far too common, because "the authorities" said they were non-existent here, so the practitioner will suspect in certain cases gumma or other syphilitic affection, but is told that the lesion is excessively rare and so puts the blame on tuberculosis, typhoid fever, etc., and eliminates syphilis. All of us have seen cases of syphilitic fever with, at times, diarrhea, and with marked abdominal tenderness which have put us to our trumps to differentiate from typhoid fever, and we know that an acute enteritis, entero-colitis, hepatitis, or nephritis may occur about the time of the onset of the secondary syphilitic lesions these affections yielding promptly to antisyphilitic treatment, and we feel justified in considering them specific in etiology. But still we look askance at more advanced lesions and prefer to consider them non-syphilitic. Personally, I am of the belief that such specific lesions of the abdominal viscera are more frequent than is generally recognized.

The recognition of such conditions is rendered quite difficult by the polymorphism of the lesions, by the comparative infrequency of the trouble, and by the fact that frequently a microscopic study of sections of the diseased tissue is the only way of deciding with any certitude the diagnosis. Of course, marked cutaneous and other gross anatomic lesions of syphilis offer a certain amount of presumptive evidence and the therapeutic test will at times help out, but we have to rely principally on the clinical evidence in making a diagnosis. And now, taking up in order, the stomach, intestines and

rectum, spleen, liver pancreas, and kidney, let us run rapidly over the subject.

Proven syphilis of the stomach is rather scarce, twenty-five cases being reported up to 1898, and a few since that time. In most cases, the diagnosis was made at operation or postmortem, the symptoms being those of chronic gastritis, gastric ulcer, or gastric cancer. The symptoms vary with the character of the lesions, and offer no diagnostic or pathognomonic points, and but few points of differentiation. With the acute gastritis, gastro-enteritis, or entro-colitis, which may occur about the time of onset of the secondary symptoms, there is clinically little difference to be noted from a similar trouble from other cause, and a careful examination of the patient's history, and a close physical examination will furnish all the evidence on which to base our diagnosis.

Should such a condition (gastro-enteritis) arise without some well defined cause, as a gross indiscretion in diet, and a history exist of an initial sore having been present some four to eight weeks previously, should, accompany this, appear a marked fall in haemoglobin, enlargements of the lymphatic glands, especially the epitrochlear, a general feeling of malaise, and a rise of temperature to a variable degree, and, most especially, should a polymorphous eruption appear on the skin, we should have strong grounds for suspicion of syphilis.

Now at this time examination will frequently show mucous patches on the buccal membrane and in the rectal mucosa. Here the diagnosis becomes probable and the therapeutic test will be of service.

Of course, where available, Wassermann's test renders great service in all cases of suspected syphilis.

The symptomatology offers little difference from that of a simple enteritis, and the pathology is that of a simple hyperemia or mild inflammation of the alimentary tract.

In the more advanced cases where gummata have developed, the protean character of the lesions is still more evident. Here the whole gamut of symptoms is run—from those of a mild indigestion to those of phlegmen, or of abscess, or of cancer.

Considering the pathology of the gummae it is easy to understand why this is so. A gumma is essentially a new growth or granuloma. There is a marked increase in the connective tissue and sometimes in the vasculation of the gummatoous area, and shortly there occurs contraction of the connecting tissue, and a consequent cutting off of the blood supply. Then may happen either stenosis from the gumma, stenosis from the cicatrix, stenosis from torsion or deformity caused by the contraction of the cicatrix, or else ulceration, due either to the limitation of the blood supply, or else from infection by one of the numerous organisms constantly present in the gastro-enteric canal.

Ulceration may occur from another common syphilitic lesion—endarteritis or periarteritis obliterans. As many of the ventricular and enteric supply arteries are terminal, with no anastomosis, their obliteration by an endarteritis or a periarteritis, or both, would quickly lead to necrosis of the part supplied by them, and as a result we would find an apparent simple peptic ulcer. That this occurs is shown by the fact that the healed scars from such ulcers, and in the rare cases when such ulcers are seen at operation, lie with their long axes in the direction of the length of the artery, i. e. transverse to the long axis of the bowel. Perforation of these ulcers into the abdominal cavity is rare, as the free submucous anastomosis prevents the death of all the coats at one time, as a result of an obliteration of the terminal arteries. Perforation of an ulcerating gumma, however, has been reported in more than one case of gastric syphilis. As a rule the slow march of the gumma allows protecting adhesions to be established, and when perforation of the viscera occurs, it is as a rule, into some neighboring organ, and not into the free peritoneal cavity. So far I can find no record of a perforating syphilitic ulcer of the small intestine, though report of such case may have been made. However, complete destruction of all the walls of the rectum with consequent fistulae, in its lower part is not an extremely uncommon occurrence. The scars of these ulcers in the small and large intestines may easily be mistaken for these of

an old typhoid fever, and after a considerable lapse of time it would be almost impossible to differentiate between the two. But a history of syphilis, with evidence of syphilis in other organs should make us suspicious. Contraction of these scars may produce partial or complete stenosis of the bowel, with all the signs of ilius.

The other abdominal viscera are at times attacked by gummata—the spleen and liver not infrequently. Gummata of the spleen are not so common nor so important as the liver, nor are the symptoms so pronounced as in hepatic involvement. A perisplenitis may occur, but with rather vague manifestations.

With the liver, however, the tale is different. An acute hepatitis may accompany or precede the onset of the secondary cutaneous manifestations, and is evidenced by malaise, languor, constipation, at times clayey stools, fever, jaundice. When the condition becomes more chronic the clinical and pathological picture is that of a chronic interstitial or interlobular hepatitis, with ultimate contraction of the new formed connective tissue, and a consequent mimicry of the so-called gin drinkers or hopped liver.

Should gummatoous formation occur the picture may simulate fairly closely abscess of the liver and large areas of necrosis may occur. Sometimes there is a single gumma but usually they are multiple.

So far I have seen no reports of syphilitic pancreatitis—whether the cytolytic effect of the trypsin generated in the pancreas has its effect on the granulomatous new growth or not is a field of surmise that so far as I know, has never been investigated.

The kidneys seem to be more prone to affection in this disease than either the intestines or the liver. Like the liver, an acute inflammation may occur early in the disease, and this acute nephritis may be fatal in a very few days, or may gradually subside into a chronic one. Clinically there is little by means of which to differentiate between this and any other form of acute nephritis, save the history and the fact that mercury and the iodides work wonderful results, impossible in other cases. Gummata are, in compari-

son with other viscera, fairly common, but are, on the whole, rare. The diagnosis is difficult and is at best, save by operation, presumptive. The bladder and arteries may become involved during the course of the disease.

The diagnosis of a syphilitic lesion of any of these viscera is difficult at all times and is frequently only a presumptive one at best. We should always bear in mind the possibility of such a manifestation in so protean a disease, and should obtain a careful history of every patient. As we know that either willfully, or else through ignorance, patients will frequently deny a syphilitic history, we must in addition make a careful examination of the patient himself. For this examination, the patient should be stripped and in a good light, preferably day light. We should look for cutaneous lesions, glandular enlargements, mucous patches in mouth and rectum and for old scars. If we are still suspicious and can gain access to a good laboratory, Wassermann's test and examination for the treponema pallidum may be made. Specimens of suspected tissues may be taken at operation and a pathological examination be made. And finally there is at hand of every practitioner the therapeutic test. Closely watched by the physician this test can do but little harm, and is capable in some cases of doing a vast amount of good.

The differential diagnosis must be made between lues on the one hand, and cancer, peptic ulcer, dysentery, mucous colitis, liver abscess, malaria and the entozoa on the other. As my time is so limited I will not endeavor to give the points of differentiation, but will refer you to your text-books and special article for them, I will only say that it is difficult.

The prognosis in lues is always good, provided the disease is discovered in time, and the treatment is vigorous and prolonged.

Should, however, the disease have obtained a firm foothold and gummatous have invaded vital structures, the prognosis is not so good. We cannot restore tissues once destroyed, though we may arrest the further advance of the disease. It is on account of the destructive nature

of the so called tertiary manifestations of the disease that an early diagnosis becomes so imperative. Sometimes the patient has to blame his own lies for his permanent ill health, but sometimes, alas the blame rests on the physician who made a careless and cursory examination.

The treatment of syphilis is so well known and such a by-word among physicians and laymen alike that it would be presumption for me to outline any course of procedure. There are many who swear by one method of administration, and equally many, by another internal, epidermal, or hypodermic; continuous, or interrupted; vigorous or dalliant; but the old adage "Who toils with Venus must toil with Mercury" still goes. I will say *this*, however that visceral syphilis requires more vigorous and more prolonged treatment than that of other organs.

And now, Mr. President, I will finish by reporting, with the kind permission of Major Kirkpatrick, surgeon of the United States Post, at Sullivan's Island, a case, which, if the diagnosis be correct is so far as I can find, unique. Unfortunately, it was impossible to establish the diagnosis with the scientific exactitude, which would give its greatest value to a case such as this.

Briefly, the history of the case is this:

H. C. male, twenty-six years old; military convict, admitted to post hospital March 1st, 1909; complaining of nausea and headache; temperature 100.1 F. Pulse and respiration not recorded. Had served in tropics. Had chancre seven or eight years ago. Syphilitic ulcer present on leg. Nocturnal headaches daily, at same hour. Eye ground not clear, and some blanching of retinal field; no choked disc; fairly well nourished man. Given mercurial purges and enema. Temperature ranges from normal in a. m. to 98.6—101.4 F. in p. m. Headaches continue in spite of free movements of bowels and of small doses of morphia and of codeia. Urine free from albumin. Slight, not marked, tenderness in pressure on abdomen, no rigidity or muscular spasm. Anti-syphilitic treatment begun hypodermically on March 11th—no improvement.

Suddenly on the evening of March 27th, patient was seized with an intense pain in his abdomen, and went into collapse; pulse weak and rapid, temperature subnormal, abdomen hard and rigid, and exquisitely tender.

He never rallied, and in about eight hours died in profound shock. Some beginning abdominal distension before death.

Diagnosis; intestinal perforation with death from shock.

Unfortunately, an undertaker undertook to prepare the body for burial before the doctor could hold an autopsy, and in his zeal to reduce the distension of the subject's abdomen, punctured the intestines full of holes, to let the gas escape.

The autopsy held by Dr. Kirkpatrick and his assistant, showed the cerebral meninges full of gummy gelatious fluid, extending even up on the vertex. No distinct gummata were found there. The stomach, liver and spleen were not examined. The kidneys were found large and somewhat congested, but no gummata seen.

The small intestines were removed and the ileum found to be full of ulcers of various sizes and depths, some being backed by an adhesive peritonitis. The ulcers were mostly on the lateral and mesenteric walls of the small intestine, and had hard, raised, infiltrated edges, some ragged, some clean cut, some undermined, some vertical, floors smooth. Some elevated, and indurated spots which had not ulcerated. Did not closely resemble typhoid ulcerations but more closely tubercular ulcers.

Dr. Kirkpatrick kindly furnished me with samples of the specimens preserved, and I am indebted to Dr. Francis B. Johnson for this pathological examination. Microscopically, they show dense, round, cell infiltration, periarteritis, endarteritis, periphlebitis, increase of vascularity, giant cells of Langhans type, and no necrosis or caseation of the nodules. The

round cell infiltration extends beyond the margin of the ulcers and is mostly in the submucous coat, but also invades the mucous and muscular coat.

No Treponema pallidum or tubercle bacilli demonstrated so far.

Probable diagnosis:—Syphilis of small intestines.

Owing to the action of the undertaker it was impossible to locate the site of the perforation as the intestine was riddled with holes from his needle, but the clinical signs left little doubt as to the correctness of the diagnosis of intestinal perforation.

Curtis, in an admirable paper on Syphilis of the stomach, in the Journal of the American Medical Association, April 10th, 1909, arrives at the following conclusions, which fit the pathological findings in this case nicely:

1. Location of changes:—The seat of primary involvement is, as a rule, the submucosa, the gummatous tissue invading other coats secondarily.

2. Military gummata, sometimes with giant cells of the Langhans type.

3. Spirochaerae pallidae—These are not to be depended on, according to the views of both Koch and of Schmorl. They are often not present in undoubted syphilis; on the other hand, Koch, using the Levaditi stain, found in cases of undoubted carcinomata of the lung, organisms of the typical appearance of Spirochaeta pallida.

4. Peculiar vascular changes of high grade, resulting in partial occlusion or obliteration of vessels. Cellular accumulations are found about the vessels. The latter may become thickened from cell increase, thus beginning from without, or subendothelial change may be the prominent feature. The process tends to spare many vessels entirely, while others are thickened to the point of occlusion."

Resembling so closely in every way the above points of Curtis, I feel justified in presenting this case to you as one of probable perforation of syphilitic ulcer of the small intestine.

THE SOCIAL EVIL

By REV. DONALD W. RICHARDSON, Greers, S. C.

Your having asked me to be present and to speak to you on the subject of The Social Evil is a manifestation of the fact that you are interested in it and to those who are deeply concerned about the suppression of any evil, one of the most hopeful signs which they can see is the manifestation of an interest in their cause. Some of the greatest evils which have afflicted the human race have been allowed for centuries to do their deadly work unhindered simply because it was impossible to arouse the interest of men in them as real, vital issues. Happily, however, the age of indifferentism in the presence of those great evils which threaten the very existence of our health and our homes and our happiness has passed away, and in this highly specialized age of ours, with its madly rushing, keen and competitive life, a great evil—be it spiritual, psychical, or physical—no sooner lifts itself into prominence than the attention of men is attracted, their interest is awakened, and presently their forces are marshaled against it. I need only refer by way of illustration, to the recent conventions and discussions, with their consequent plans of warfare against those newly prominent physical evils—the hookworm and pellagra.

And to those of us who, from the nature of our calling if for no other reason, feel the greater interest in social and moral evils than in physical, there is a large note of hopefulness in the fact that others are sharing our interest. But by way of parenthesis, let me ask you not to misunderstand me as a minister I do not disregard the physical basis of life. I know that matter acts upon mind and that mind acts upon matter; and that mental and spiritual and physical are by some mysterious process blended together in one in the complex mechanism of life. And I would not insult your intelligence by reminding you that the closing years

of the last century and the opening years of this have witnessed a great change within the church; and especially in her attitude towards great problems and processes of life. The indications of a return to the Christianity of Christ lie open to our sight on every side. A new and more strenuous spirit of helpfulness characterize the inner and outer life of the churches; they are becoming more humanitarian. And in the larger and more vital appreciation of the gospel of service, of love, and of human brotherhood, they are becoming more practical, going into the fuller life of human relationships, in which the capabilities of fellowship, love, and sympathetic helpfulness are liberated, expanded and enriched—and are seeking that the spirit of Christ may be realized in the life of the family, the community, the church and the nation; and become wholly the informing life of the world. In other words, that which marks the new era in church life and methods is the recovery of the full teaching of the early church—that the office of the church is to heal and to teach, as well as to preach. If we call such work ‘new,’ it is only because we have lost sight of it for several hundred years for the work is as old as the Apostles, and bases its claim upon the teachings of the Son of Man. To help in the healing of the physically ill is a real part of the church’s mission. And the church which ministers only in “things spiritual” falls just as far short of the Christ ideal as does the physician who cannot or will not point his dying patient to that Great Physician of Souls as well as bodies, who alone can accompany one through the dark shadows of the Valley of Death. In ministering to the sick and the dying the church has the divine example of Him who went about “healing all manner of diseases,” and who commanded his followers to “heal the sick.”

The church, therefore, is interested in the physical and social, as well as in the

*Read before the 4th district Medical Society Easley, Nov. 15 '09 by Rev D. Richardson, Greers, S. C.

moral and spiritual needs of the human kind. As a churchman and as a minister I am interested in anything and in everything, from the dirty politics of our land all the way up and down, that in any way affects the weal or the woe of the human race. And I believe that the church has made a great mistake in the past in supposing just because she is not in any sense to meddle in social and governmental affairs as an organized ecclesiastical machine, that, therefore, she is to keep her mouth shut and her hands off with reference to those great problems which the state and society present to the church for solution.

But after all this is said the minister in the nature of the case and because of the insistent demands of his own peculiar calling, has a more vital interest in sickness of soul than he has in sickness of body, places a greater emphasis upon the moral than upon the physical; for as the mind is greater than matter, so also the spiritual is greater than the physical.

As a churchman and as a minister, therefore, I welcome and applaud the fact that along with your discussion of "Some of the Most Common Causes of Cross Eyes," and "Tuberculosis," and "Hook Worm" and "Pellagra," you have found time and place for the consideration of the Social Evil. It is a hopeful sign of the times when the man who can scientifically report on the removal of a bullet from the bladder can bring the same scientific spirit to bear in an attempt to account for and remove a great moral as well as physical evil from the soul as well as the body of man.

When I was asked to address your Medical Association on the subject of the Social Evil, my first thought was that I would speak to you from the standpoint of the minister, and consider theologically theological implications. Upon more mature consideration, however, I decided to deal with the question simply from the point of view of a man of the times who looks out over his age and its life and attempts to squarely face its facts. I trust, therefore, that I shall not speak in the technical language of the church I shall try not to, though it will be hard to avoid doing so, for I was born in the church and have been reared in it, and

I love the church, love its terminology and love its theology. But I would have you believe that the theologian also can take hold of facts from the scientific standpoint; he can tabulate and analyze them and then draw his conclusions from them.

I. First, then, as to the fact of the social evil or sexual impurity, considering it simply as a physical fact which obtrudes itself into the realm of our daily living and acts as a barrier to our social and physical progress. The pellagra patient and wretched victims of the hook worm are estimated by the millions, but who can tell with any degree of definiteness the number of those who are socially unfit and sexually unclean? The consideration of the evil in the mere enormity of its reach, in the breadth of its compass leads us into one of the saddest and most abhorrent chapters of our present social life. I have not lived altogether the life of a religious recluse in the dim, mysterious aisle of some cloistered sanctuary and my observation of life, not only in our own country, but also in some of the cities and towns and villages of old Europe, has convinced me that one does not need to exercise one's imagination, one needs no play of fancy nor employment of hyperbole, in speaking of the wide spread prevalence of sexual sickness. It is a phase of our social life which is not inviting, which repels rather than attracts—which not only repels, but which also affrights and affronts the sane judgment of sober and right-thinking minds.

Somewhere in former days I have read a strikingly peculiar story, which bears upon its surface the signs of truth. It is a story which comes from the gay and brilliant and fascinating city of Paris in the 18th century. The city at that time, even as in some respects it is today was especially characterized by its false standards of chivalry and gallantry and by its strongly emphasized sexism if I may be permitted to coin a phrase for the convenience of the occasion. The story as I remember it, runs on this wise: An aristocratic father, who had himself tasted of the bitter fruits of an immoral life, was especially concerned about the future of his son who was a passionate

youth, in clined to be intemperate and lustful even in his boyhood. He had been kept somewhat secluded from the social life of the day: but from the reading of popular literature he conceived the idea that the life of a beautiful courtesan and of a passionate man in the company of a courtesan, was the ideal life to live. And so his father promised him that upon his next birthday he would go with him to a house where only courtesans would be seen. With our un-Parisian processes of mind and imagination, we can conceive somewhat of the expectant delight, the joyful anticipation with which this youth looked forward to his demi-mondaine acquaintances and companionships. The father kept his promise, but instead of taking his son to some fashionable brothel with the light and careless laughter of its gay bohemian frivolities and passions, he carried him to a Hospital for Magdalens, where were housed and doctored and cared for those miserable victims of the social evil, who had sold their bodies, and some of them their very souls in the unholy gratification of their sexual lusts. Needless to say the mind of the enchanted youth was freed from its sinful illusion.

Now the story may be crude and offensive to our cultured literature taste, but it is psychologically correct, and it contains a teaching for us in the beginning of this new century who are interested in the same evil. If you and your associates of the medical fraternity at large, with the intimacy of your knowledge of this evil's extent and issue; and with the thoroughness of your acquaintanceship with it, not only theoretically but also from the practical experience of your profession, if you from out the storehouse of your knowledge would marshall your facts: and if like the father of that story you would give to those of us who do not know a vision of the disgraceful damnable diseases and defilements and deaths which so frequently follow in the wake of the licentious gratification of the animal lusts, which are the necessary consequence of this social evil—you would render a service of incalculable value to the social organism of which we are all a part, and especially to the young of our generation, who are already putting their stamp upon the future, and who are to

be the leaders who will determine what that future shall be. I submit to you gentlemen of the medical profession, that the people at large and as a whole are ignorant of the dangers which menace them in consequence of the social and sexual impurity which prevails, and here also it is true. How shall they know and believe except they be told? Upon you rests the great burden of the responsibility for informing the minds of the people. You can speak with that emphasis of authority which the certainty of knowledge gives. In your utterances on the subject there need not be that uncertainty of sound which characterizes the speech of the laity and unlearned. You only can scientifically present to the public the facts about the grave dangers which threaten them and their unborn sons and daughters, if they be caught in the octopus grasp of the Social Evil, and be infected with the noxious poison of sexual sickness. It is an old proverb that an ounce of prevention is worth a pound of cure. And the teaching of that parable of the Parisian father and his son is of value only if it be applied before the evil is incurred.

In thinking of the prevalence of social impurity and of sexual disease, together with all that which they mean to the people of our generation and to their posterity, I have sometimes wished that I had combined and concentrated in my own hands all that latent and unused power for good which is possessed by the countless physicians of our land. I would bring that power to bear, not only upon the thoughtless youth with his incipient lust of woman; but also upon the aged, the fires of whose passion are spent; upon husbands and wives, fathers and mothers and maids! I would break those bonds which have held our lips so tightly closed in the past—that miserable product of a false modesty; and from the housetops and upon the hills, in valleys and in deep ravines I would proclaim the fearfulness of the dangers which lurk in sexual impurity—dangers to the individual, the family, the community, the state, the nation, and the race—proclaim with all of the emphasis of expression which that evils demands. I would inform and enlighten the minds of the people.

should know that in sexual diseases we are confronted by one of the most powerful and dangerous enemies of our moral and physical well being, an enemy in the warfare against which we ought to concentrate all of the forces of our social system. If any one of you were the commander of an armed force and if you were going to lead that force against some enemy which you wished to utterly destroy, you would not immediately raise the war cry and rush your men forward with the exercise of no strategy and the employment of no military tactics. You would first of all inform your men as to the position, strength, and extension of the opposing force. You would tell them of the kind and degree of danger which threatened; and of the consequence to be expected if the enemy be not routed. The information which you would impart to your little band of men would inspire them with the spirit of heroic endeavor.

You see the application which I would make. And this work of informing the minds of the people at large is the peculiar task of the physician. He must take the initiative for he has the knowledge. But you of the medical profession must have that spirit of the Keeper of the Light of whom Robert Bridges sings:

"Out there, entangled in the fog and spray,
Unnumbered hopes go sailing through the night,
And reach the haven of a clearer day.
Because resplendent I have kept the light."

The medical fraternity as individuals, but above all through associated and organized effort, can enlighten the public:

1. As to the origin of sexual diseases and the means of their propagation. Popular ignorance on this point is largely responsible for the popular indifference

2. As to the wide-spread prevalence of sexual disease. That portion of the public which is pure is almost unaware of the existence of sexual impurity. The physician can pour an almost overwhelming flood of light upon public opinion.

Difficulty of securing statistics. The statistics which might be obtained would always be represented by minimum fig-

ures, and would fall far short of the real number of cases. In Denmark, the physicians are required to make a return to the Bureau of Statistics every eight days giving the number of cases, which they have been called on to treat. This method is not accurate.

Army statistics—English Army, 25 per cent. could not infer some high percentage for the English people at large.

In Germany on April 30th, two thirds of the regular physicians of the German Empire reported 41,000 persons affected with syphilis—or 18 per cent. of the entire population. In the city of Berlin alone there were 11,000 cases reported. These figures again, however, represented only the minimum number of cases. One third of the physicians did not fill out the blanks furnished them by the government; and we must allow for them, therefore, a minimum of 20,500—which would give a maximum of something like 60,000 syphilitic cases. But in considering these statistics again, we must remember, the fact that a very large number of such cases are not under regular medical treatment. In Germany almost every barber, chiropodist, manicurist etc., poses as a specialist in the treatment of venereal diseases, and a large number of patients fall in the hands of these quacks, or else rely upon the fancied efficacy of widely advertised patent nostrums. Others treat themselves by frequenting such popular syphilitic resorts as Wiesbaden, Baden-Baden, et al.

But on the basis of the returns made by regular physicians, the German Bureau of Statistics estimated that in the course of a year not less than half a million men out of 22 million were afflicted with venereal diseases. I remember hearing one of the professors in the medical faculty of the University of Berlin in a public address make the statement that on an average every German young man has been three times infected by some form of venereal disease before his marriage.

Statistics for America as presented e. g. in the report of the committee of seven appointed by the Medical Society of the County of New York in 1901.

3. As to the consequences of sexual disease for the individual and for society. The popular impression is that venereal diseases, especially gonorrhea, do not amount to much. Hardly anyone who is unlearned imagines that here could be any probability of gonorrhea becoming a chronic evil.

Bring clearly, plainly, and forcibly before the people a vision of the sorrow and suffering which follow sexual impurity, and their interest and activity will be awakened. There will then be an urgent and insistent popular demand for the suppression of the social evil.

But apart from the enlightenment and enlargement of the popular understanding, What are the means for the suppression of this evil?

Now the world isn't made anew over night. Our social system, our moral standards, cannot be revolutionized in a few days nor years. To cleanse this Augean stable of our social system in a single day, would require more than Herculean strength, a strength which we of the modern world do not possess. But we should not shrink back in fright from the greatness and the difficulties of the task which confronts us. Every great social problem seems at first sight to be encompassed about by insuperable walls of difficulty. But where would our present much-boasted civilization and social achievement be, if we and our fathers before us had simply folded our hands and sat down in hopeless despair in the presence of every great social evil?

The question of *protection* against the social evil, in its ultimate analysis, is only a question of *prevention*—a question of prophylaxis. And this prophylactic treatment must be personal, social, and civic. And when I say personal and social, I mean that there must be a cleansing and quickening of the personal and social conscience. The responsibility and the accountability of the individual and of the social system need to be more and more emphasized. Our men need to be educated to a for higher respect for woman. It is time for us to give up our false double standard of morality, whereby we set one standard for the man and

another for the woman. Both are equally responsible in the sight of the moral law, and the same should be true in the requirements of social law. What a respectable woman may not do, that also should be prohibited to the respectable man. It is a weakness on the part of woman that she does *not demand* that her conjugal companion for life, who is to be the father of her children, should be physically and morally clean. Love and faith are poor substitutes for a clean bill of health, when the question of posterity is concerned. The man who seduces a girl soon abandons her to her fate. Our social system continues to countenance and favor him, but casts her aside. Even her own family turns her out of the home frequently, while they continue to associate on terms of equality with, the man who compassed her ruin. But I shall not go further into the discussion of this question of double moral standards. It is an interesting field for thought.

The suppression of social impurity is also closely and intimately connected with the struggle for the suppression of alcoholism. Alcohol increases sexual desire, while at the same time it dulls the perception of right and wrong. Many a man and woman has done under the influence of drink that which would have been impossible for them in their normal condition. It is alcohol which drives many women to prostitution and it is also alcohol which drives men to prostitutes. But I shall not go further into the discussion of prohibition in its relation to prostitution.

For I believe that the greatest means of protection which we have is publicity, and the power of publicity is in the hands of the physicians. The physicians themselves are beginning to realize this and are awakening to a sense of the responsibility which rests upon them. Such associations as the Health League of Boston are doing admirable work in spreading a knowledge of the laws of sexual health among the people through public addresses and by the circulation of scientific and yet popular literature.

If the public be informed as to the

causes of propagation and prevalence and consequences of sexual impurity, then public indignation and public censure will be a mighty power of restraint upon the sexual wrongdoer. Popular sentiment can be made a buckler for the protection of society. Our loathing for those sexual sinners who wantonly and wickedly endanger the happiness and welfare of our homes and of our social system alone will restrain them. That public scorn and contempt is a great weapon for the protection of public safety has been shown more than once in the history of national development. In our public schools we teach the physiology of the heart, the brain, the lungs, the stomach, and the other vital organs; but our public instruction ceases when it comes to the most important function of all—that of reproduction, on which depends the very existence of the race. The social evils and the sexual diseases of the past have been shielded by that miserable fetish which has been termed the "Anglo-Saxon sense of prudery." And this lack of correct information among the masses of the people constitutes one of the most menacing problems of our American civilization. And I believe that the time has come for us who are parents and in fact for all thoughtful citizens to aban-

don that false delicacy, that shameful prudery, which invites the destruction of our individual and national health, by surrounding sexual questions which such absurd secrecy.

The public indignation which has recently been aroused by the exposures of the white slave traffic in our cities teaches us that public conscience is not a dead thing in America. The publication of George Kibbie Turner's plain story about Tammany's complicity with commercialized vice has enkindled a righteous bitterness against the evil in New York. The city of Chicago, when it learned the facts responded with strong support to the splendid crusade led by Clifford Roe, who has sworn to break up the procurer's trade in the West and altogether there is better promise than ever before that our great cities will be purified from organized pandering. And if the purification of our social system as a whole is ever accomplished, it will be by the means of publicity. Bacteriologists tell us that no known disease germ can for long service exposure to the sunlight, and this social disease also will inevitably succumb, if, in all of its phases, it be exposed to the light of publicity. Ignorance is always a curse, and knowledge always a blessing. The truth made manifest shall make men free.

PERSONALS

Dr. A. Wylie Moore, a graduate of the University of Virginia who has been practicing in New York, has removed to Chester, his old home.

Dr. Wm. R. Barron, of Hendersonville, S. C. has located in Columbia, and is associated with his brother, Dr. C. W. Barron, in practice.

Dr. Wm. C. Abell, formerly of West Union, V. A., has located in Columbia.

Dr. Mary R. Baker, who has been ill of typhoid in the Knowlton Hospital, is convalescent.

Dr. Walter Cheyne, of Sumter, has severed his connection with the Sumter Hospital and will in the near future, erect one for his own private patients.

Drs. J. W. Babcock, and J. J. Watson,

of Columbia, made addresses on pellagra, before the New York Academy of Medicine, on Dec. 16th.

Dr. J. W. Jersey of Greenville, was one of the cup winners at the Charleston Golf Tournament.

Dr. C. Fred Williams, of Columbia, was called in consultation with the Illinois health authorities, in regard to pelagra at Bartonsville State Asylum for the Insane.

Dr. Robert L. Edwards, formerly of Darlington, now of Richmond, Va., has opened an eye, ear, nose and throat infirmary, at 100 E. Grace street.

Dr. Sarah C. Allan, of Charleston, has returned from several month's stay in Europe.

DEPARTMENT

Of the Society of Medical Secretaries, South Carolina Medical Association.

DR. ALLEN J. JERVEY, Charleston, Chairman.

DR. MARY R. BAKER, Columbia, Vice-Chairman.

DR. L. ROSA H. GANTT, Spartanburg, Secretary and Treasurer.

THE SECRETARY AND HIS OPPORTUNITY

By DR. JOHN B. DONALDSON, Cannonsburg, Pa.

Some one said that he would rather be right than be President. Somebody else said that he would rather be a door-keeper than dwell in the tents of wickedness. Now, I want to preface my remarks by adding to these expressions of great men that I would rather be the Secretary of a County Medical Society than be President of the American Medical Association. With all due respect to the great men that have filled this position, and they are not deteriorating one jot or tittle of late years, but their brief one year's term is too short for me. There may be other and more cogent reasons, to your mind, why I would not be President, but from my viewpoint the Secretary of any county society has a better chance to be useful and serve his fellow practitioners than has the president of the American Medical Association.

You may liken them to the little orderly and the great general, but much more depends on the orderly than he is given credit for. The simile does not carry out further, for the great generals of the American Medical Association don't have the opportunity of "Doing things" that the Secretary does. "The Secretary and His Opportunity" is to my mind a great theme, and is as yet comparatively unexplored. When your president, Dr. McClellan invited me to come

out here and talk to you people about things "you all" know as much about as I do, I felt a timidity that was terrifying to me, but his courteous letter of invitation left no place for me to creep out, so I accepted. Such genial energetic fore-seeing president as yours, gentlemen, may cause me to revise the closing sentence of the paper I had the honor to read to the Secretaries of my own State last year (and to that paper, I am told, I am indebted for this kind invitation), in which I said "anything will do for a President of a society, but not so as to the secretary." I say it may cause to revise it, but as yet with me the Secretary holds "the spot light." Even Presidents may wake up and be energetic, as witness the message containing advice and thanks which a very limited number of our men are sending to their constituents this year. Even Presidents are learning that this is an age of "doing things," and if a president, then may we not hope for the salvation of the committees and members? I may not give credit for some of the bright things I may quote to-day, and I don't want to be accused of plagiarism, for even a secretary can't think of all the good things being said in the interest of organization.

"The Secretary and His Opportunity" It is said "The road to hell is paved with good resolutions." Never that way I am not authority on that subject. Some body else has said: "There is a tide in the affairs of men, which, taken at the flood, leads on the victory." The gentle-

*Abstract of paper read at the meeting of the County Secretaries at Columbus, Ohio, April 1907, and printed in Ohio State Medical Journal, May, 1907.

men I am quoting were not secretaries of county medical societies, perhaps, but no doubt would have been had there been any societies to be Secretary of, for they were unquestionably bright men. What they said has stuck better than much of the slang of this day. From this prelude you may have gathered that I believe in the secretary and his opportunity and I want to impress that on your mind, if I do nothing else. There is to me no more pitiable character than a Secretary that fails to rise to his opportunity. To be content to slide along year after year, merely doing those things that can't possibly be left undone, allowing his correspondence to remain unanswered and his minutes to be kept on slips on paper, that are lost by the first puff of wind that blows into his dingy office, is in this age of "doing things" unpardonable.

"The Secretary and His Opportunity." Who has the opportunity to know the medical men of his county like the Secretary? Every secretary should have at hand the name and address, date and college of graduation, you hear of a new moving into your county, have him looked at once. Don't put it off. Find out all about him. Then study how to reach him. If one of your men moves away, as they do, without notifying you, have the secretary of that county look after him, and thus keep him from lapsing his membership and becoming a goat. It is an easy thing to get into your society, if you only study how. You must take care of your members, and at all cost avoid friction, but sometimes I think a nice little scrap clears up the atmosphere. Watch out that the clearing process don't split your society into factions. One of the best societies in our state has just gone through a factional war, that came near ruining it. The men at its helm were always to the front in county and state work, but a jealous contingent, incapable of the work, saw their chance to oust them, and it was only by tactful work the organization was saved and is again forging to the front. If a Secretary has temper, he must at all times keep it under control, for the paranoiacs will sorely try it for him, and

once he loses control he is liable to errors that can never be corrected. It will be a school of instruction for you to study the human mind from a standpoint, that other men don't have. You will come across the terribly busy doctor. If you let him tell it, he's "as busy as a bird dog" all the time. When you ask him to prepare a paper or open a discussion, he will turn loose his busy bee arguments upon you until he makes you want to get so far away that you won't ever hear from him. In all human probability he is some little two-for-a-nickle chap, located at some cross-roads, that never made eleven hundred dollars on any one year in his life, but he will reiterate the harrowing fact that he hasn't warmed a bed for a week. Some men have an idea that such blather helps get business. On the contrary, it will deter intelligent people. I am always suspicious of these chaps that sleep in their clothes, and when you look them up you find that they are either lying or are grossly unable to systematize their work, or both. The busiest men I know of can always find time to read or give a talk that helps others, and don't begrudge the time.

A secretary must be fearless to do right. He must assume responsibility. Who knows better than he about the question? Who has the opportunity? The president may be notified, but he will generally expect the secretary to act and you can't wait for a meeting or conference. It is a good plan to have a few men whom you can rely for prompt advice in case of an emergency, but it is you, Mr. Secretary, that will have to "do things." Above all things, a secretary must not be lazy. A lazy doctor is an abomination in the eyes of people who "do things" and has missed his calling. He should have studied for the ministry.

If there is no committee on program the secretary is perforce a self constituted committee, or nothing doing on meeting day. It is surprising how many societies chase along year after year trusting to luck for a paper on the presentation of a case to fill in a little time and call that a scientific meeting.

And these same men will ask you in all earnestness what they will do to get their men out to the meetings. It is absurd to think men will turn out when they know there will not be anything doing but old Dr. Fortyniner talking about Veratrum Viride in puerperal convulsions, or young Dr. Cutterup trying to tell the rest about Meckel's diverticulum or something equally impracticable and unheard of. I heard a surgeon talk for 45 minutes not a year ago on Meckel's diverticulum and it was a safe bet that not over 6 in the audience had heard of it before. But we all looked wise, and also looked it up when we got home. He did that much good. Give them live subjects and encourage them to discuss them. Encourage the young men, and don't sit upon the old ones. If you do, there will be trouble, for we old Fortyniners have a place to fill for a few years yet.

Programs can not be arbitrarily arranged. Try to have something every time that will be a bit of a surprise. We think best to have a stated program, but the element of curiosity must play a part. Have an outsider, not necessarily from the city. Exchange for a good man from an adjoining county, and be

surprised that you have such good neighbors. Exchange pulpits with them. Always call the roll of your members, and in doing so pause and ask for information as to those not attending very often. In this way you keep track of your people and familiarize the rest with their confreres. I knew it is old fashioned, but it pays in county societies. Keep a correct record of attendance of every meeting and at the end of the year give a synopsis of it in your report, for you should make a yearly report that will give everything. At the last meeting of the fiscal year, in calling the roll, after each man's name, tell the society how many times he has had grace given him to be present. It may stimulate the lazy. This yearly report should give average attendance, highest attendance, lowest attendance, number of papers read, number of "pudden heads" who failed to read after getting on the program, all money passing through your hands and many other things that will occur to you, for you are the one that can enlighten them, and they should know these facts. It may sound like a schoolboy's report, but it pays to do the little things that everybody does not do.

COUNTY SOCIETY REPORTS.

SPARTANBURG

L. Rosa H. Gannt, M. D. Secretary.

At the November meeting of the Spartanburg county Medical Society, Dr. J. W. Babcock of Columbia was the guest of the society and read a most interesting paper "The Pellagra Problem." As requests come in from a number of the laity to be permitted to hear Dr. Babcock, seats were provided and besides nearly every member of the society, about seventy-five men and women listened with great interest to his reading. Prior to this public meeting several cases of pellagra were presented and Dr. Babcock pointed out the prominent and interesting features of each case to the members of the society who were delighted to have with them such an au-

thority on the subject. After the meeting the society adjourned to one of the hotels for dinner.

DORCHESTER.

Edmunds W. Simons, M. D. Secretary

The Regular Monthly Meeting of the Dorchester County Medical Association was held at Summerville on the evening of Monday, Nov. 1st., and was fairly well attended. It certainly was an interesting meeting, and those members absent, some on account of professional engagements, others on account of the presence of a circus in their town, missed a very pleasant and profitable evening.

Dr. H. B. Lee read an excellent paper on "Foreign Bodies in the Rectum" covering a wide experience in the treatment

of such conditions. Discussion was led by Dr. A. R. Johnson, Dr. Lee closing.

Dr. J. L. B. Gilmore, drug essayist, was unavoidably absent, but sent a well-written paper on "Creosote" which was read and freely discussed.

The next meeting will be held at St. George some time during the month of December, time to be selected by a committee appointed to arrange a banquet for the occasion. This meeting will be held in the evening, and in addition to the regular essayists, both happy selections, prominent members of sister associations will be invited to attend and read papers. We look for a large meeting.

Dr. F. Julian Carroll will read the essay, and Dr. G. B. Harley the drug essay.

The Dorchester County Medical Association held the annual meeting in the office of the Dr. M. B. Johnston, at St. George, on the evening of Dec. 16th 1909.

The attendance was fair, but much below what was expected. Invitations had been extended to several prominent physicians and surgeons from Columbia and Charleston, but to a man, they failed to materialize likewise the association essayists, much to the disappointment of the faithful, who were present and ready for a good time.

Several interesting cases were reported and discussed, and the members went reluctantly from labor to refreshment, the annual supper being served in the Masonic Hall.

St. George being absolutely dry (?) and the orators absent, the supper was very informal, but delightful and enjoyed, not only by the medical men, but by numbers of guests invited to fill the vacant chairs.

The following officers were elected for the coming year: President, Edmund W. Simors; Vice president, W. P. Shuler; Secretary, Jno. B. Johnston; Treasurer, Elias D. Cupper.

The next meeting will be held in Summerville, when it is expected the absent essayists will "make good."

I would like to say to those members of this county association who have been left out of the directory recently issued by the American Medical Association, that their names were omitted through no fault of the secretary, but by the errors of the proof-readers.

The sheet sent me was corrected and mailed to publishers promptly, but on receiving the directory, I find several physicians of both St. George and Summerville left out, the wrong man put as secretary, several association men entered as non-association—altogether a careless piece of work.

ABBEVILLE.

Dr. G. P. Neill, Secretary.

The Third District Medical Association will hold its next meeting at Abbeville, on January 21st, 1910.

An especially attractive program is being arranged. Dr. G. A. Neuffer is president, and Dr. G. P. Neil is secretary.

DEATHS

Special to The State.

Clinton, S. C., Nov. 5.—James Franklin Davis died Wednesday at the home of his cousin, Robert C. Davis, near here, and was buried yesterday morning in the Davis family plot of Rockbridge church. A number of people from Clinton and Laurens attended the funeral service which was conducted by the Rev. W. S. Bean.

Dr. Davis was 74 years old. His literary training was received at Laurens Court House. His medical training was received in Philadelphia at Jefferson Medical college. After his graduation from there he practiced his profession in Greenwood until the opening of the war when he entered the army as a private. After First Manassas he was promoted to assistant sur-

geon, and soon after that was made surgeon and was stationed with the regular army at Fort Fisher. He remained there until the garrison abandoned the fort. At the close to the war he settled in Shreveport, La., and soon rose to prominence in his profession in that city. When yellow fever scourged New Orleans and Vicksburg he gave his services freely to the sufferers, displaying such heroism that the order of Masons in Vicksburg presented him with a valuable gold watch on which was the following inscription. "Presented by the Masons of Vicksburg, to Dr. Jas. Franklin Davis, Nov. 1, 1878." This recognition was the more noteworthy because Dr. Davis was not himself a Mason.

Sorrow and ill health cast a gloom over the latter years of his life, and he gave up the practice of his profession a number of years ago.

Special to the State

Chester, Nov. 1.—Dr. Augustus F. Anderson one of the county's oldest citizens, as well as the oldest medical practitioner and a man universally beloved, passed quietly away at 6 o'clock this morning two miles southwest of Lowryville. For some time Dr. Anderson's health had been failing, but Saturday he was apparently as well as usual with the exception of a slight pain in his left shoulder. This grew worse and last night apparently affected his heart, death coming this morning in the early watches, with kindred and friends gathered around his couch. The funeral services will be held at Zion Presbyterian church to-morrow morning at 11 o'clock by Rev. F. A. Drennan and an immense concourse will gather to pay their last respects to the good citizen and beloved physician.

Dr. Anderson was a native of Charleston and was born September 26, 1818. His early education was obtained in the common schools of this county and at Mount Zion academy in Winnsboro, where he was a classmate of the late Dr. James H. Carlisle. In 1843 he graduated in medicine from the Medical College of Georgia at Augusta, and at once took up the practice of medicine in this county. He was ranked high in his pro-

fession, not only in this county, but in the state at large, and took a prominent part in gatherings of the medical fraternity. He was assistant surgeon of the Sixth regiment S. C., V., in the Civil war, and after the war was for many years surgeon of the county pension board. In 1878 he was elected a member of the legislature but had no liking for public life, and dropped out of politics after one term. He had been engaged in active practice until recent years, 62 years in all, when failing eyesight had caused him to desist from his active labors. He is survived by the following children: Mesdames E. C. Lowry and Janie Estes and Messrs. W. A. and D. G. Anderson, all of the Lowryville neighborhood.

The following resolutions were passed by the Chester County Medical Society.

Whereas, the Great Physician in His infinite wisdom, has seen fit to take unto Himself our oldest and honored member, Dr. A. F. Anderson, and

Whereas, his life was characterized by those virtues of the heart which endeared him to all; and being endowed with rich intellect which was always used for the advancement of our chosen profession whereby the path of truth was made plainer for those of us who follow.

It is resolved that we, the members of the County Medical Society, grieved at his death, hereby express our affection for him as a member of our society and our esteem for his noble character and high ideals and

Further resolved, that these resolutions be incorporated in the minutes of the society, a copy be sent to the bereaved families, and copies sent to the local papers and to the S. C. Medical Journal for publication.

S. G. Miller, M. D.
H. E. McConnell, M. D.,
W. R. Wallace, M. D.
Committee.

(From the News and Courier.)

Laurens, December 15.—At 9 o'clock last night Dr. John Terry Poole, after a long and useful life, breathed his last

death being due to the infirmities of age. While he had been in declining health for some time, the end was rather sudden. There was no one in the house at the time but his wife and the negro servant. The funeral and interment will take place on Friday, that date being set in order that Mr. John T. Poole, Jr., P. of Oklahoma City, Okla., may reach Laurens.

Dr. Poole practiced medicine for over forty years and served throughout the war as a surgeon in the Army of Virginia, as a private. He was born in Laurens county, near Enoree, on April 25, 1836; early in life he moved to Cross Anchor in Spartanburg County, and there practiced his profession. He married Miss Anna Wofford Allen, of Spartanburg. In the year 1885 Dr. Poole moved his family to the city of Laurens and continued his practice.

In speaking of Dr. Poole this morning members of the profession here said: "Dr. Poole has done more work than any other physician in Laurens county and has worked for nothing a great deal. It is a fact commonly known, that up to three years ago when his health began to fail he had never refused to answer a call regardless of weather conditions, distance or whether or not he could reasonably expect to get pay for the work. He attended people who owed him for thirty years of service. There was not a kinder-hearted man living."

All over Laurens county and in Spartanburg there will be hundreds of people who will recall the many kindnesses and never failing faithfulness of Dr. Poole and who will mourn his death. His long and useful life of 73 years has been a blessing and boon to many, many people.

MARRIAGES

FLOYD-MAULDIN.

On October 27, 1909 Dr. L. O. Mauldin, of Greenville, S. C. and Miss Carrie M. Floyd of Woodruff, S. C., were married at two p. m. in the Presbyterian church at Woodruff by Rev. S. C. Byrd assisted by Rev. J. J. Harrell

Dr. Mauldin and his bride are at home to their friends in Greenville.

WILSON-DUBOSE.

On Sunday Nov. 5, 1909 Dr. S. B. DuBose of Bishopville and Miss Zola Wilson of Sumter were married

BOOKS REVIEWED

THE DISEASES OF CHILDREN—By *Henry Enos Tuley, M. D.* Professor of Obstetrics, University of Louisville, Medical Department; Visiting physician Masonic widows and Orphans Home; Secretary of the Mississippi Valley Medical Association; Ex-Secretary and Chairman of the Section on Diseases of Children, American Medical Association, etc., Louisville, Ky. Illustrated. Baltimore Southern Medical Publishing Company 1909

HISTORY OF YELLOW FEVER—By *George Augustin*, Assistant Secretary Louisiana State Medical Society; As-

sistant Secretary-Librarian Orleans Parish Medical Society, New Orleans; Author of "Romance of New Orleans" and other Creole Stories. To which are added the following articles:

MEDICAL

ETIOLOGY—G. Farrar Patton, ex-Secretary Louisiana State Board of Health.

PREVENTION—Quitman Kuhnke, ex-President New Orleans Board of Health.

PATHOLOGY—O. L. Potheir, Pathologist to Charity Hospital, New Orleans.

DIAGNOSIS—Hamilton P. Jones, Physician in Chief New Orleans Yellow Fever Hospital, Epidemic of 1905.

TREATMENT—Lucien F. Salmon, Ex-Secretary Louisiana State Board of Health.

PROGNOSIS—Charles Chassaignac, Dean New Orleans Polyclinic.

THE LOUISIANA SYSTEM OF HYGIENIC EDUCATION—Fred J. Mayer, Secretary Louisiana Sanitary Commission.

HISTORY AND STATISTICS

THE PANAMA CANAL AND YELLOW FEVER—Col W. C. Gorgas, U. S. Army. Epidemic of 1905

Henry Dickson Bruns, M. D.,

Charles Chassaignac, M. D.

Louis G. LeBeuf, M. D.

Jules Lazard, M. D.

Sidney L. Threard, M. D.

New Orleans: Published for the Author by Searcy & Pfaff Ltd. 1909.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA—(The State Board of Health) Organized 1847 Meeting of 1909. Birmingham, April 20-23. Montgomery, Ala. Brown Printing Co. Printers and Binders

HUMAN PHYSIOLOGY—An Elementary Text-Book of Anatomy, Physiology, and Hygiene. By John W. Ritchie, Professor of Biology, College of William and Mary, Virginia. Illustrated by Mary H. Wellman. Yonkers On Hudson, New

York World Book Company. 1909

EXERCISES IN EDUCATION AND MEDICINE—Exercises in Education and Medicine. By R. Tait McKenzie A. B., M. D. Professor of Physical Education, and Director of the Department, University of Pennsylvania. Octavo of 406 pages, with 346 illustrations. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$3.50 net; Half Morocco, \$3.00 net. W. B. Saunders Company. Philadelphia, London.

A TEXT-BOOK OF OBSTETRICS—Including Related Gynecologic Operations The New (6th) Edition A Text-Book of Obstetrics: Including Related Gynecologic Operations. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Sixth Revised Edition. Octavo of 992 pages, with 847 illustrations, 43 of them in colors. Philadelphia and London: W. B. Saunders & Company, 1909. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

MEDICAL GYNECOLOGY—By S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Second Revised Edition. Octavo of 702 pages, with 150 original illustrations. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$5.00 net; Half Morocco, \$6.50 net. W. B. Saunders Company, Philadelphia and London.

Dec 1909.

FLAT FEET.

Max Strunsky, of New York, explains the pain due to flat foot as due to fatigue and inflammation of the muscles that support the bones of the arch, mainly the tibialis anticus and posticus, or to paralysis of the nerves supply this group of muscles. The lessened tonicity causes these muscles to stretch and to become lengthened, and the astragalus is pushed down by the body weight, and the scaphoid is

rotated. Wasting diseases cause this loss of tonicity. The crucial test of the strength of the arch is its appearance, when the patient stands, not when he sits. Prophylaxis consists in stopping abuse of the feet by wearing proper shoes without pointed toes, and not turning the toes out. Rest is the best treatment of the acute inflammatory stage and support by celluloid plates after it is relieved—Medical Record, August 21, 1909.

When a pyloric carcinoma is palpable, preoperatively, radical removal is usually impossible—H. N.—American Journal of Surgery.

The examination of the eye ground's will often be the first clue to atu mor of the brain.—N. H.—American Journal of Surgery.

Osteosarcom a about a joint may closely simulate a rapidly-growing exostosis deformans.—H. N.—American Journal of Surgery.

FOR SALE.—An established practice in lower Carolina will be turned over to a good physician who buys teams and pharmaceuticals. Apply Retire, care Journal S. C. Medical Association, Florence, S. C.

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SOUTH CAROLINA MEDICAL ASSOCIATION

Next Annual Meeting at Laurens, S. C., April 20, 1910.

House of Delegates Convenes April 19, at 2 p. m.

District No. 1: Charleston, Berkley, Dorchester, Colleton, and Beaufort. Councilor, Dr. J. T. Taylor, Adams Run, 1911.

District No. 2: Orangeburg, Bamberg, Lexington and Calhoun. Councilor, Dr. W. P. Timmerman, 1910. Batesburg, S. C.

District No. 3:—Saluda, Newberry, Greenwood, Laurens and Abbeville. Councilor, Dr. O. B. Mayer, Newberry (Chairman of Board), 1911.

District No. 4: Anderson, Oconee, Pickens, Greenville, Spartanburg, and Union. Councilor, Dr. J. F. Williams, Roebuck, 1912.

District No. 5: Cherokee, York, Chester, Fairfield, Lancaster and Kershaw. Councilor, Dr. W. B. Cox, Chester, 1910.

District No. 6: Chesterfield, Darlington, Florence, Marlboro, Marion, and Horry. Councilor, Dr. William Egleston, Harstville, 1911.

District No. 7: Richland, Sumter, Clarendon, Williatmsburg, Georgetown and Lee. Councilor, Dr. F. M. Dwight, Wedgefield, 1910.

District No. 8: Barnwell, Aiken, Edgefield, and Hampton. Councilor, Dr. T. G. Croft, Aiken, 1912.

Officers

President, John L. Dawson, M. D., Charleston.

2nd Vice-Pres., C. M. Rees, M. D., Charleston.

1st Vice-Pres. F. H. McLeod, M. D., Florence.

3rd Vice-Pres., A. H. Hayden, Summerville.

Treasurer, C. P. Aimar, M. D., Charleston.

Secretary, Walter Cheyne, M. D. Sumter.

TABLE OF COUNTY SOCIETIES AND OFFICERS.

Where information is wrong or lacking in the columns below County Secretaries are urged to supply it correctly to the editor without delay:

County Society	President	Secretary	Time of Meeting
Abbeville.....	J. A. Neuffer.....	C. C. Gambrell, Abbeville...	
Anderson.....	J. L. Gray.....	J. R. Young, Anderson.....	Semi-Mo., 1st and 3rd Monday
Aiken.....	C. A. Teague.....	T. A. Quattlebaum, Gr't'vile.	Monthly, 1st Monday
Bamberg.....		J. J. Cleckley, Bamberg.....	
Barnwell		No Society.	
Beaufort.....	H. M. Stuart....	M. B. Cope, Port Royal.....	
Charleston....	John L. Dawson	A. J. Jersey, Charleston....	Semi-Mo 1st and 15th
Cherokee	William Anderson	J. G. Pittman, Gaffney.....	
Chester.....	J. G. Johnston...	W. B. Cox, Chester.....	Monthly, 1st Monday.
Clarendon....	W. M. Brockinton	C. B. Geiger, Manning.....	Quarterly
Chesterfield..	T. E. Lucas.....	J. W. McCanless, Chesterfield.	
Colleton	Ben Willis	T. G. Kershaw, Walterboro..	Monthly.
Darlington....	J. F. Watson....	J. C. Lawson, Darlington....	
Dorchester....	F. Julian Carroll	E. W. Simons, Summerville.	Monthly, 1st Monday.
Edgefield.....	S. A. Morrell	J. G. Edwards, Edgefield....	
Fairfield.....	R. B. Hanahan.....	Samuel L'ndsay, Winnsboro.	Quarterly
Florence.....	F. H. McLeod....	J. H. Peele, Cartersville....	
Georgetown..	W. M. Gaillard ...	J. I. B. Ward, Georgetown..	Monthly 1st Friday.
Greenville....	L. L. Richardson	W. M. Burnett, Greenville..	Monthly, 1st Monday
Greenwood....	R. B. Epting	J. B. Hughey, Greenwood....	Monthly, 1st
Hampton.....	T. B. Whatley...	C. A. Rush, Hampton.....	Monthly, 3rd Wednesday
Horry.....	A. D. Lewis.....	J. S. Dusenbury, Conway...	Monthly, 2nd Monday
Kershaw.....	S. C. Zemp.....	W. J. Burdell, Lugoff.....	
Laurens.....	W. D. Ferguson.	J. H. Teague, Laurens.....	Monthly, 4th Monday.
Lee.....	B. L. Harris.....	R. O. McCutcheon, Bishopville.	Monthly, 1st Tuesday.
Lexington....	W. L. Kneece...	J. J. Wingard, Lexington....	Quarterly.
Marion.....	A. McIntyre	Z. Smith Marion	
Marlboro....	W. E. Eaddy.....	Chas. R. May, Bennettsville.	
Newberry....	J. M. Kibler.....	J. J. Dominick, Prosperity..	
Oconee.....	J. W. Wickliffe	E. A. Hines, Seneca.....	
Orangeburg...	W. L. Pou.....	D. D. Salley, Orangeburg....	Monthly, 3rd Tuesday.
Pickens.....	J. L. Bolt.....	R. J. Gilliland, Easley.....	Monthly, 1st Wednesday.
Richland....	L. A. Griffith.....	Mary R. Baker, Columbia...	Every 2nd Monday night
Saluda.....	D. B. Frontis	J. D. Waters, Coleman.....	
Spartanburg..	S. T. D. Lancaster	E. R. Wilson, Sumter.....	Monthly, 1st Thursday.
Sumter.....	Archie China....	R. R. Berry, Union.....	Weekly
Union.....	J. T. Jeter.....	L. Rosa H. Gantt, Sp'tnb'g.	Monthly, last Friday.
Williamsburg	W. H. Woods....	E. T. Kelley, Kingtree.....	Monthly
York.....	M. J. Walker....	John J. Barron, Yorkville...	Bi-Monthly

Cleanse the Blood and Keep it Circulating

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The phagocytes are the scavengers of the blood, but unless the affected part receives the full amount of the normal flow with its opsonins, resisting power is lost. In pneumonia it is necessary to either increase the opsonic index of the blood, so that the small amount reaching the congested lungs may be of normal opsonic value, or dilate the vessels and let the blood freely circulate, carrying the phagocytes into the lungs.

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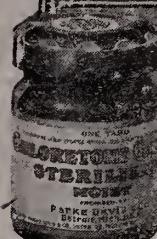
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FOR HYPODERMATIC INJECTION.

Adrenalin Chloride Solution has hitherto been marketed only in ounce vials, and in the strength of 1:1000. For a long time, however, there has been an insistent demand for a weaker solution and a smaller package. It is now ready for your specification.

DIRECTIONS—Break off the neck of the ampoule at the file-mark, as shown in the illustration. Use an ordinary hypodermic syringe. Insert the point of the needle behind the shoulder of the ampoule—not to the bottom. (See cut.) Elevate the bottom of the ampoule as the piston of the syringe is withdrawn, and the contents can be removed to the last drop.

Marketed in boxes of 1 dozen.

PARKE, DAVIS & COMPANY

LABORATORIES: Detroit, Mich.; Walkerville, Ont.; Hounslow, Eng.

BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Minneapolis; London, Eng.; Montreal, Que.; Sydney, N.S.W.; St. Petersburg, Russia; Bombay, India; Tokio, Japan; Buenos Aires, Argentina.



**Water-damaged August 1978.
Frozen and vacuum freeze-dried 1979.**



